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THE JUNIOR COLLEGE

ITS ORGANIZATION AND ADMINISTRATION

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EDITOR'S PREFACE

At the time when the junior college movement has reached a point of progress which makes possible the first reorganization of an American university on the upper division and graduate basis, it seems appropriate that a book, setting forth this progress, and indicating the manner of its accomplishment should be brought out by the Stanford University Press. It has been the purpose of the editor and his co-workers to present in this volume the junior college, not from the theoretical side, or from the research side, but from the practical side. Ten of its thirteen chapters have been written by men who are now in active contact with junior colleges as administrators. The effort was made in securing these collaborators to have every type of junior college represented, the city junior college, the large rural junior college, the small union junior college, the junior college connected with a teachers college, as well as other varieties.

It will be found that the writers do not always agree with each other. Some favor the 6-3-3-2 plan of organization, some the 8-4-2 plan, and some the 6-4-4 plan. This is as it should be. The men in the field are the ones to try out the various plans and through discussion and comparison of experiences work out the ultimate form of organization and administration. As a matter of fact no one type of organization will probably fit all the possible situations which arise; but it is only as the men who are on the field try out different experiments and report their findings that the general situation will be improved.

It is hoped that a study of the contributions made by the collaborators in this volume will prove to be of assistance to those in other states, as well as in California, who are interested in the junior college movement, whether from the standpoint of the university, the public school administrator, or the layman desiring to keep in touch with new educational movements. An

educational movement which is so vigorous that the number of institutions which it represents has increased from about one hundred in 1919, to more than three hundred [both public and private] in the country as a whole, in 1927, is one that cannot be overlooked. Not only are the educator and the taxpayer under obligation to study the problem; but the alumni of the universities, which are apt to be affected by the growth of the movement, must be prepared to form a judgment based on facts and not merely dictated by prejudice.

The junior college movement cannot be halted or turned aside, but it can be guided and directed. The willingness of those who are on the firing-line to tell what they know, unfavorable as well as favorable, and to contribute thus to a full understanding of all the problems involved is a splendid indication that the movement is in the hands of open-minded leaders.

The editor desires to acknowledge with gratitude the splendid assistance given in the preparation of the manuscript by the collaborators whose names appear on the title-page. Without their contributions it would have been impossible to carry out the idea back of the book, which was to give a view of the public junior college from the inside. Nine of the twelve contributors are actively connected with public junior colleges as teachers or executives. They have given of their time and have drawn upon their practical experience with this new type of institution. After writing the chapters which they were asked to write to make the book possible, they have generously united in agreeing that any royalties which may accrue, after costs of publication have been met, shall be given to the general scholarship funds of Stanford University.

WILLIAM MARTIN PROCTOR

STANFORD UNIVERSITY, CALIFORNIA
August 31, 1927

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INTRODUCTION

The widespread interest in the junior college, together with the lack of understanding of its functions and of its present growth, fully warrants the presentation of a joint study upon the subject.

The junior college has slowly but definitely found its way into American education. It is a necessary corrective for the inadequacies of the long-established American system. It symbolizes the cessation of the fetish-worship of the numeral 4—four years in the high school, four years in the college—which has resulted in those artificial divisions of American education along certain social lines regardless of the requisite training of the mind.

The presence of the junior college in a community means that an opportunity is offered for those in their teens to give themselves a thorough try-out, without great economic disadvantage and without leaving home after high school graduation. The great expansion in the size of the student bodies in the colleges and universities of this country, gorging them beyond any possibility of successful instruction, has compelled the creation of the junior college. The large student mortality in the freshman and sophomore years of the great universities has been mortifying and humiliating to thousands of our youth. The junior college offers the opportunity for students to find out more about their own interests and capacities, and helps them through the preparatory stages if they know that they want to become lawyers, teachers, doctors, business men or women, research workers, and so on. It provides for those who have neither the capacity to profit by university instruction nor the necessary financial backing the chance to round out their education by two years of work of college grade, given usually in smaller classes and with more personal supervision than is pos-

sible in the larger colleges and universities of the country. Experienced and capable teachers who plan to make teaching a life work make up the faculty of the junior colleges. The boy or girl who is developing maturity slowly will thus have a much better opportunity under such instruction than is possible in the crowded classes of the ordinary university, taught by beginners or by the lecture system.

While serving as a trying-out place for the youth of the country, the junior college, by relieving the university of the elementary work of the first two years, can set the American university free to carry out its own great purposes. These institutions can offer, too, an opportunity for those boys who are mechanically minded and for those girls who are domestically minded, so that while developing their abilities in using their bodies in useful ways they can also obtain a better appreciation of things about them by work in languages, history, mathematics, government, and other subjects, and thus acquire a broader culture.

The facilities required for the junior college are practically those of a good high school, with some extension of libraries and laboratory equipment and with a better-trained teaching staff.

Conclusion { We can look upon the junior college movement which is now spreading throughout the United States as the most wholesome and significant occurrence in American education in the present century.

RAY LYMAN WILBUR

STANFORD UNIVERSITY

June 22, 1927

CHAPTER I

CALIFORNIA'S CONTRIBUTION TO THE JUNIOR COLLEGE MOVEMENT

WILLIAM MARTIN PROCTOR*

When McDowell's *Bureau of Education Bulletin No. 35* (1919), on the junior college, was published, twenty-one public junior colleges reported from California. This was more than fifty per cent of the public junior colleges in the country at that time. At present it is estimated that there are one hundred public junior colleges in the United States; thirty-one of these are in California. As the other states develop this phase of their public school system California's proportion of the total number of public junior colleges will continue to decrease. Her contribution, however, will have been made in the pioneering character of the work accomplished. Through wise legislation and opportune financial aid it has been possible to demonstrate the feasibility of this addition to the public school system in a manner which has commended it to many other commonwealths. It is appropriate, therefore, in this opening chapter of a book on the organization and administration of the junior college, to review briefly the progress of the movement in the state where it has, up to the present, had its most notable development.

Stages of development.—There may be said to have been four stages of this development.

1. *The permissive stage.*—In 1907 a law was passed which authorized the high school board of any high school district "to prescribe post-graduate courses of study for the graduates of such high schools, which courses of study shall approximate the studies prescribed in the first two years of the university

* Professor of Education, Stanford University.

courses." Fresno High School was the first to take advantage of this permissive law, and by 1910 there were ten of these "upward extensions of the high school" with a combined enrollment of about seven hundred students.

2. *The recognition stage.*—The law of 1917 recognized the junior college as an integral part of the secondary system of the state. Any high school district having an assessed valuation of three million dollars of taxable property might organize a junior college department, by vote of its board of trustees. State aid was granted on the same basis as to regular high school students.

The University of California, through its committee on credentials, set up certain standards which junior college departments of high schools must meet in order that their graduates might receive credit in the university for work done in the junior college. Among these conditions were: (a) Admission requirements must be the same as for the University of California. (b) The program of studies must include at least two full-year courses of collegiate grade in English, history, mathematics, foreign language, and science. (c) Laboratory equipment must be adequate to afford proper facilities for giving science courses of collegiate grade, and must cost, over and above high school requirements, from \$1,500 to \$3,000. (d) Libraries must be enlarged to meet the new demands of college work for reference books. (e) The Degree of Master of Arts should be considered the minimum scholastic requirement for faculty members. (f) Salaries must be adequate to secure competent instructors for the junior colleges. These standards have remained the basic standards for accrediting "certificate" courses in the junior colleges of California, and might well be followed as minimum requirements by other states.

The recognition accorded to the junior college by the law of 1917 and the active support and interest of the two leading uni-

versities in the state resulted by 1919 in a total of twenty-one junior colleges, having an estimated enrollment of about eighteen hundred students.

3. *The affiliation stage.*—The junior college law of 1921, provided that there should be a property valuation of ten million dollars, and an average daily attendance of four hundred students in the high school district which wished to organize a junior college that could become affiliated with the University of California. Also such district, after the second year, must show an average daily attendance of seventy-five in the junior college division, in order to retain its status. Three types of junior college were authorized, i.e., single district, union district, and county junior colleges. This law also provided for state aid to junior college districts complying with its provisions, amounting to \$2,000 per year for being a junior college and \$100 per student in average daily attendance. All junior colleges organizing, or reorganizing, under this law, might enjoy the privilege of affiliation with the University of California. Under such an agreement of affiliation all collegiate courses and the qualifications of faculty members would be subject to the approval of inspectors sent out by the university.

Junior colleges in the same city with state teachers colleges might arrange to be taken over by the teachers colleges, in which case they would come under the jurisdiction of the State Superintendent of Public Instruction, as director of education. Six junior colleges took advantage of this provision.

Seven or eight junior colleges took advantage of the affiliation privilege, and for a year or two the state university maintained a special official junior college co-ordinator, in addition to sending a great many individual faculty members on inspection tours. The arrangement did not work out very happily, either for the junior colleges or for the university. While the law has not been changed, there is a kind of gentlemen's agree-

ment that the relationship will be that of mutual helpfulness, rather than that of inspection and domination. With this new understanding there is in existence a splendid spirit of co-operation between the junior colleges and the university. Reports of the State Superintendent of Public Instruction for 1923, show that there were twenty-two junior colleges reporting, with an enrollment of about three thousand students.

4. *The stage of assured permanence.*—As each of the other stages in the development of the junior college in California was associated with a significant bit of legislation, so too is the fourth stage. The junior college law of 1927, which is described in detail in chapter iii, marks the coming of the junior college completely into its own. Two new types are provided for, the joint union, and the joint county junior college districts; and other important matters are therein set forth which give the junior college a definite and permanent status in the public school system of the state. The great strides in enrollment made in the past five years can be seen from Table I, as may also the number of junior colleges which have been successively added to the list until at present there are thirty-one institutions reporting, with an enrollment of over six thousand students.

There are nine junior colleges reporting in 1926–1927 which did not report in 1922–1923. There has been an increase in attendance at all the junior colleges reporting in 1922–1923, except the one at Eureka, where the attendance fell from 40 to 10, and at the San Diego Teachers College where the attendance reported fell from 284 to 19. The Eureka junior college department may be said to have very little reason for existence, since the Humboldt State Teachers College at Arcata is only a few miles away and has a junior college department which in the period covered has increased 108 per cent while the Eureka Junior College has decreased 75 per cent. The falling off at the

CALIFORNIA'S CONTRIBUTION

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TABLE I

TYPES OF JUNIOR COLLEGES, AND THEIR ENROLLMENT, BETWEEN THE
ACADEMIC YEARS 1922-23 AND 1926-27

	Total Enrollment		Percentage of Increase or Decrease	
	In 1922-23	In 1926-27	Increase	Decrease
1. JUNIOR COLLEGE DEPARTMENTS OF HIGH SCHOOLS				
Azusa (Citrus Union).....	42	81	93	..
Bakersfield (Kern County Union).....	94	156	70	..
Brawley (not reporting in 1922-23).....	...	22	...	..
Colton (not reporting in 1922-23).....	...	135	...	..
El Centro (Central Union).....	34	47	40	..
Eureka	40	10	...	75
Hollister (San Benito Union).....	59	113	90	..
Pomona	54	80	48	..
Reedley (not reporting in 1922-23).....	...	37	...	..
Salinas (not reporting in 1922-23).....	...	29	...	..
Santa Maria	13	44	238	..
Santa Rosa	45	185	311	..
Susanville (not reporting in 1922-23).....	...	34	...	..
Taft	20	51	155	..
Ventura (not reporting in 1922-23).....	...	23	...	..
Visalia (not reporting in 1922-23).....	...	58	...	..
Totals	401	1,105	175	..
2. JUNIOR COLLEGE DEPARTMENTS OF STATE TEACHERS COLLEGES				
Chico	26	113	335	..
Arcata (Humboldt State Teachers Coll.).....	25	52	108	..
Fresno	421	650	57	..
San Diego	284	19	...	98
San Jose	168	650	281	..
Santa Barbara	96	136	42	..
Totals	1,020	1,620	58	5.
3. JUNIOR COLLEGE DISTRICTS, UNDER LAW OF 1921				
Chaffey Union (Ontario).....	227	393	73	..
Fullerton	231	235	2	..
Kentfield (Marin) (not reporting, 1922-23)...	...	92	...	..
Modesto	185	354	91	..
Pasadena (not reporting in 1922-23).....	...	634	...	..
Riverside	200	341	70	..
Sacramento	372	847	128	..
San Mateo	46	393	754	..
Santa Ana	166	287	73	..
Totals	1,427	3,576	150	..
Grand totals	2,848	6,301	121	..

San Diego Teachers College is due to the practical abandonment of the junior college division. The San Diego High School will no doubt soon resume its junior college department.

It should be remembered in connection with the enrollment given for the junior colleges in the table above that the extension course enrollments are not included. Only the regularly enrolled full-time students are given. This means that there are several thousand part-time students being served by the junior colleges but not represented in the figures given. It is a safe statement to make that the junior colleges are ministering to the educational needs of more than ten thousand regular and part-time students.

Junior colleges which have not survived.—During the various development periods outlined above, forty-four junior colleges have been organized. Since only thirty-one of these are now functioning, it means that thirteen have been discontinued. Three of those which were discontinued were absorbed by the University of California at Los Angeles. The other ten to cease functioning were connected with high schools. Some of these districts found the attendance too small to justify continuance, others found the tax burden too heavy. No junior college organized under the law of 1921, which requires at least a ten million dollar property valuation before a junior college district can be organized, has been discontinued. This is a pretty clear indication that mere enthusiasm and community pride do not warrant the establishment of a junior college. A very substantial financial background is required to insure success for any such venture.

Universities and junior colleges in California.—While generous state aid and wise legislation have been material factors in the progress which the junior colleges have made in California, the part played in that success by the two leading

universities, the University of California and Stanford University, must not be overlooked. Dr. Alexis F. Lange, for many years the Dean of the School of Education, at California, was a tireless worker for the junior college idea. He wrote, lectured, and counselled in its favor, and had no little part in the setting up of the high standards which have been characteristic of a majority of the junior colleges of the state.

Dr. David Starr Jordan, Chancellor Emeritus of Stanford, to whom this volume is dedicated, has stood consistently for the autonomy of the high school, and for the relinquishment by the universities of their two years of secondary work. In 1907, just twenty years before the Board of Trustees took the action recommended by President Ray Lyman Wilbur for the gradual elimination of the Lower Division, Dr. Jordan made the following recommendation:

To make a university, in the world sense, of Stanford University the following elements seem to me essential: The elimination as soon as possible, let us say in the course of five years, of the junior college [first two years] by the addition of two years to the entrance requirements.

I ask your board to consider the project of the immediate separation of the junior college from the university or the university college, and to consider the possibility of requiring the work of the junior college as a requisite for admission to the university on and after the year 1913, or as soon as a number of the best equipped high schools of the state are prepared to undertake this work. It seems a necessary proviso in view of the fact that by the terms of the original gift, Stanford University must be kept in touch with the public school system of California.

Thus in a prophetic way was the development of the junior college in the state foretold, and a seed thought regarding the future reorganization of the University in line with that development planted in the minds of its Board of Trustees. Supplementing Dr. Jordan's statement, should also be given that of Dr. Wilbur, in presenting the matter to the Stanford Board of Trustees for final action, in June 1927:

There is no good reason why endowment funds given for a "university of high degree" should be used to subsidize elementary instruction given in many places in the state, when there is such a constant demand for more funds for the assistance of those students who desire adequate university training for the professions and for research. Looking ahead a very short time we can see that we will have available junior college facilities at one edge of our campus provided by a county district and supported by the taxpayers, and at the other side a private junior college for those able and willing to pay the tuition.

In order to meet the situation, to protect the Stanford endowment, to keep the prestige of the University, and to maintain a position of leadership in education, I am recommending to the Board of Trustees that, beginning with the academic year 1928-1929, further limitations be made in the number of students accepted in the lower division, *in proportion to the number of applications received from junior college students*. It seems probable, at the present rate of increase in the number of junior college students, that by the time the present preferences cease, January 1, 1934, our lower division work will practically be absorbed by other institutions.

The favorable action of the Board of Trustees of the University on the foregoing recommendation of President Wilbur means that by approximately January 1, 1934, or during that academic year, Stanford will be completely transformed to the upper division and graduate basis. The Board could not act favorably on Dr. Jordan's recommendation in 1907 because there were at that time no junior colleges in the state; but, in the twenty years intervening, the development which we have briefly sketched has made possible the consummation of Dr. Jordan's dream. The universities of the state fostered the junior colleges, and now that the junior colleges have grown to manhood they will soon be prepared to take over those two years of university work, which have heretofore meant the mixture of advanced secondary school work with the work which belongs to the university proper. Thus the universities will become upper division and graduate institutions.

What the junior colleges have done for California.—Up to this point we have been considering what California has done for the junior college movement. It is only fair to summarize briefly what the junior college movement has done for California.

In the first place the junior college has afforded some 6,500 ambitious young people of the state an opportunity for at least two years of cultural and practical training above the high school level. Since nearly all of the standard four-year colleges and universities were limiting their attendance, this means that a number of young people equal to the entire population of the larger state universities have been given higher educational opportunities from which they would otherwise have been excluded.

A second contribution of the junior colleges to the state has been that they have provided extension and extra-hour classes, also of a cultural and practical nature, for the benefit of the adult citizens of the communities in which they are located. The numbers thus served almost equal the number in regular full-time attendance. Because the people who attend such classes could not possibly receive this educational service without the presence of the junior college in the community it is apparent that the general welfare of the citizens of the state is being enhanced by the growth of the junior college movement.

Another contribution which the junior college has made is found in the growing consciousness on the part of the leading citizens of the state that the whole range of secondary education, grades seven to fourteen inclusive, is the concern primarily of the local community. When this consciousness has become a definite conviction it will mean that the state will no longer provide entirely at its own expense for the first two years of the present college course, but will extend its aid and encouragement to local communities which desire to establish junior

colleges. The economy of such a policy can be seen from the following rough estimate of the cost to California for state aid given to junior college departments and districts during 1926-27. This estimate does not include the cost to counties and local communities, nor does it include appropriations made to state teachers colleges. State aid to the sixteen high schools having junior college departments, at the rate of \$30 for the 1,000 students in average daily attendance, was \$30,000. Each of the nine junior college districts received \$2,000 as bonus, making a total of \$18,000. They also received \$100 for each of the 3,500 students in average daily attendance, or a total of \$350,000. Roughly, then, it cost the state \$400,000 for the 4,500 students in junior colleges outside of teachers colleges in 1926-27. The estimated cost per student at the University of California is from \$350 to \$450 per student. Taking the lower figure, it would have cost the state \$1,575,000 to have provided for these 4,500 junior college students at the two branches of the state university. In other words, this level of secondary education was secured in local communities at just about one-fourth what it would have cost the state treasury if given in the state university.

The most important contribution, however, of the junior college to the state of California, cannot be stated in terms of money cost or money economy. The presence of thirty-one public junior colleges, not to mention ten or twelve private junior colleges, means that there are scattered throughout the state just that many cultural and higher educational centers which tend to raise the standards of living and thinking in those communities. It also means the equalization of educational opportunity. (Every boy and girl in the state is stimulated by the knowledge that two years at least of higher education may be had without prohibitive cost.) Thus the junior college makes real the dream of a truly democratic system of public education.

CHAPTER II

THE FUNCTIONS OF THE JUNIOR COLLEGE

FRANK WATERS THOMAS*

The need of carefully determined functions.—One of the most vital of the issues involved in the junior college movement is that concerning the legitimate functions of this type of educational institution. It seems obvious that the form of organization, the range and character of courses offered, the regulations and requirements, and similar matters must ultimately be determined in the light of their relation to the appropriate functions of the junior college. A general uncertainty in regard to such functions is apparent to anyone who attempts a survey of current aims and practices in the field. This situation calls for a critical study of the various proposals which have been brought forward, in order that a working agreement may be reached as to the basic functions which the junior college should assume.

Criteria for determining these functions.—In order that the selection of functions may be made in a reliable manner, it seems sound practice to apply three tests to any proposed function before admitting it as one of the basic criteria by which to judge the development and efficiency of any junior college. The tests are:

a) Has the proposed function played any influential part as a recognized aim in the establishment of existing junior colleges?

b) Does there now exist a marked social or educational need, not met by other institutions, which would be satisfied through the fulfilment of the proposed function by the junior college?

c) Has this function been advocated or approved by educa-

* President, Fresno State Teachers College, Fresno, California.

tors of sufficient standing and familiarity with college problems to merit consideration on such grounds?

Unless the proposed function can be shown to satisfy all these requirements, it can hardly be considered sufficiently established to serve as a standard for evaluation. This suggested method of selection is believed to be broad enough to permit the inclusion of all purposes of unquestionable soundness, and yet rigorous enough to exclude proposals which are the results of unwarranted enthusiasm or of local bids for publicity. That there is need for caution in the latter respect is evinced by the fact that Koos¹ found claims of no less than twenty-one different functions for the junior college among the circulars, announcements, and general literature of the field.

As will be brought out in the subsequent sections of this chapter, there seem to be four basic functions which meet these tests. They may be designated as (1) the "preparatory" function; (2) the "popularizing" function; (3) the "terminal" function; and (4) the "guidance" function: Each of these will require appropriate explanation and justification.

The preparatory function.—Early developments in the junior college movement centered around the efforts of certain high schools and small colleges to organize courses which duplicated those of the first two years of the universities. In this way students could be retained at the smaller institution and prepared for advanced work in the upper classes of the universities.

It is a significant fact that the guidance and encouragement for these developments in both the high schools and the small colleges came from the large universities and naturally reflected, in the type of work emphasized, the function most closely re-

¹ L. V. Koos, *The Junior College Movement* (Boston: Ginn & Co., 1925), pp. 19-27.

lated to the purposes of the university, namely, the preparation of students for advanced or upper division work.

The development of this type of influence may be illustrated by the situation in California. As early as 1892, the University of California recognized officially the distinction between upper and lower division work. Accordingly, when the California Legislature passed, in 1907, a bill authorizing high school districts to add an upper two years to the regular high school course, the university was already prepared to recognize such work and incorporate it into its plan on lower division courses. Fresno, in 1910, was the first high school to make the authorized extension, and its example was followed during the next three years by Santa Barbara, Los Angeles, Santa Monica, Fullerton, and Bakersfield; and by the end of 1914 the number so doing had reached ten. The new institutions found Stanford University as cordial toward their aspirations as the state university had proved to be. In a letter to Superintendent McLane of Fresno, President David Starr Jordan expressed his approval of the new junior college in the following terms:

I am looking forward, as you know, to the time when the large high schools of the state, in conjunction with the small colleges, will relieve the two great universities from the expense and from the necessity of giving instruction of the first two university years. The instruction of these years is of necessity elementary and of the same general nature as the work of the high school itself. It is not desirable for a university to have more than about 2,000 students gathered together in one place, and when the number comes to exceed that figure, then some division is desirable. The only reasonable division is that which will take away students who do not need libraries or laboratories for their work.¹

The authorities in charge of the new junior colleges felt no little pride in the fact that they were helping to do the work of the great universities, and the recognition which was accorded

¹ Quoted by C. L. McLane in *School Review*, March 1913, p. 166.

the work of their students upon transferring to the higher institutions was a matter of community satisfaction to which local newspapers gave due publicity. This tendency to emphasize the "preparatory to university" function was naturally strengthened in California, as it was in the Middle West, by the fact that guidance was regularly sought from the universities by the neophytes in college administration who were in charge of the new institutions. So frequent were the requests for advice and direction that the University of California issued in 1915 a special bulletin for the guidance of the junior colleges. In this bulletin, approval was expressed of the preparatory function¹ and the way in which it was being fulfilled. But in addition to more detailed advice and suggestions for carrying on this purpose, the attention of junior college authorities was called to other important functions which were in danger of being overlooked in the zeal for serving the interests of those who were destined to continue in advanced work.

The function which has been designated as "preparatory" has been then extremely influential and generally recognized in the junior college movement. That it still is justified by social and educational needs is obvious when one considers the crowded conditions which exist at the universities, necessitating either a restriction of enrollment in the Freshman and Sophomore years, or increased provisions for lower division work at the expense of the upper and more distinctly university work. It seems entirely clear, therefore, that this should be accepted as one of the basic functions of the junior college.

The popularizing function of the junior college.—The friendliness of the universities toward the junior college movement would not have availed to bring about their widespread

¹ *The Junior College in California*, circular, University of California Press, July 1915.

establishment if there had not also been a local demand that pupils completing the regular high school course be accorded an opportunity for higher education more freely than was already possible. It was this desire to serve the students who could not otherwise continue their education which led to the addition of post-graduate courses in Joliet, Saginaw, Detroit, and other Middle Western high schools which pioneered in the movement. This local demand for work of a collegiate character was by no means clear and definite as to what the precise nature and content of those courses should be, and consequently fitted in readily with the direction which the universities were ready to give. It could best be characterized as a vague conviction on the part of the citizens of these communities that their high school graduates who desired higher education were entitled to an opportunity to secure it, and that the community would somehow be repaid for the additional outlay by an enriched citizenship and more competent service on the part of those so educated.

The fact that this desire to provide in a more democratic way for the local needs has been a very influential force in the extension and development of the junior college movement was shown in a study made by McDowell in 1918-1919. His inquiry was addressed to the junior colleges then in existence and asked for the reasons which had prompted the establishment of each of them. Replies from 21 public junior colleges and 54 private ones indicated a predominance of this purpose in their conceptions of their functions.

The ministrations to local educational needs will apparently remain an urgent responsibility for the junior college in all localities not immediately adjacent to higher educational institutions. Even the latter are largely "local" colleges for first- and second-year students as was shown by Koos.¹ In his study of

¹ L. V. Koos, "The Residential Distribution of College Students," in *School and Society*, XLVIII, 557.

39 colleges of the four-year type, he found that 40.9 per cent of the enrollment came from within a radius of 25 miles and that 27.5 per cent came from the immediate community. The percentages are the medians for the entire group. Perhaps even more to the point was the further finding of Koos, that in communities adjacent to colleges, 13.9 per cent of the high school enrollment later attended college while in high schools not adjacent to colleges, only 6 per cent overcame the handicaps incidental to distance and attended college. Similar facts were revealed in the United States Bureau of Education survey of 1914-1915, which showed, for example, that one-third of the enrollment of Columbia University was drawn from New York City, and that even a state university like Wisconsin takes 27 per cent of its students from the county in which it is located.

The obvious conclusion from these facts is that distance from an institution of higher learning operates as a strong deterrent to college attendance, and that the need of most communities in this respect can best be met by the maintenance of a junior college. The fulfilment of this function by which higher educational opportunity is brought within popular reach is at least partially realized by the mere fact of establishing a local institution. Any adequate performance of this function, however, must go farther and adapt the educational offerings to the specific needs of the community as these are determined by a careful survey.

A recognition and advocacy of this type of community service as a legitimate function of the junior college is to be found in the writings of E. J. James, J. Stanly Brown, Will C. Wood, James R. Angell, and others. Perhaps the best statement of this need and the clearest emphasis upon the corresponding responsibility of the junior college is to be found in Dean A. F. Lange's address before the National Education Association in 1915, in the following words which were given

the official sanction of the University of California and incorporated into the *Junior College Bulletin* of 1915:¹

In California the upward extension of the high school was from the first urged along with the other, in the educational interest of the great mass of high school graduates who cannot, will not, should not become university students. Such extensions, it was argued, might and should make it possible for the small minority to enter a university, in the narrower sense, at the end of two years; but the controlling educational purpose should be to provide for a reasonably complete education, whether general or vocational.

It is coming to be generally understood that the junior college cannot serve its complex purpose if it makes preparation for the university its primary object. For the great majority of junior college students, courses of instruction and training are to be of a piece with what has preceded; they are to be culminal rather than basal; they are not to result in a "deferred education." The junior college will function adequately only if its first concern is with those who will go no farther, if it meets local needs efficiently, if it turns many away from the university into vocations for which training has not hitherto been afforded by our school system.

In view of these considerations, there seems no doubt that the "popularizing" of educational opportunity constitutes one of the basic functions of the junior college. The generous spirit with which so many communities have taken on the burden of establishing and supporting junior colleges is a clear indication of a popular desire to secure for the young people of these communities fuller opportunities than were already available for meeting their higher educational need. Inasmuch as this represents a permanent and growing demand, sanctioned, also, by sound educational authority, its satisfaction in a comprehensive way should be one of the chief concerns of the junior college.

In designating this as the "popularizing" function of the

¹ A. F. Lange, "The Junior College," in *Proceedings of the National Education Association*, 1915, pp. 119-124.

junior college, the writer wishes to emphasize the fact that the term is used in the broadest and best sense. Just as the term "popular" government signifies one through which the people's needs and aspirations find responsive consideration, so "popular" education, at least in the elementary and high schools, has connoted an endeavor to provide the best possible type of educational opportunities for "all the children of all the people." In the same sense the junior college should be the "people's college," presenting the highest local form of popular education. This should not imply any lowering of proper standards. To a lesser extent, the same limitations and variations in ability will have to be considered for which provisions are appropriately made in the lower schools. But it does mean that all more or less artificial barriers are to be removed, and that a sincere effort is to be made to provide an adequate variety of college courses up to two years in length for all whose ability and interest justify such offerings. Thus such handicaps as frequently arise from location, economic strictures, home obligations, and similar factors will be minimized. It is in this way that the junior college may satisfactorily perform its "popularizing" function.

The terminal function, and its influence.—Any thoroughgoing attempt to make the junior college serve the higher educational needs of its community inevitably reveals another function which is coming to be recognized as perhaps the peculiar province of this institution. This is the providing of terminal courses, usually vocational in character, so that the student may at the end of two years have "rounded out" his education and be qualified to take up his vocational activities in a competent and well-prepared manner. In McDowell's study of the reasons for establishing junior colleges it was found that the reason, "To provide a completion school for those who cannot go farther," stood second in relative importance, both in the reports of the public junior colleges and in those of the private

junior colleges. This aim has, accordingly, played an important part in the development of the junior college movement.

Educators who have made the most careful study of junior college possibilities in the vocational field are generally agreed that this is not only an important function for this type of college but that it holds here a field of service which no other educational agency can adequately perform. Koos states his conclusion on this point of two-year vocational courses in the following language:

The hope must rest *not in readjustments within colleges and universities of the current type, but in institutions in which the first two college years under consideration are terminal grades*. That is to say, it rests in the utilization of the junior college idea. Our assurance that the interests of those who will not or should not go beyond the first and second college years will be better conserved in such an institution is grounded in the fact that the lower schools with which this work should be associated have already made propitious beginnings toward differentiating work for those who can and should continue their education and for those who cannot and should not continue it.¹

The most cogent argument, however, which has yet appeared in favor of the two-year terminal courses of the semi-professional type, was presented by R. J. Leonard, Director of the School of Education of Teachers College, Columbia University, in an address before the National Association of Junior Colleges in February 1925, and published three months later in the May issue of *Teachers College Record*.² Dr. Leonard was formerly Professor of Vocational Education at the University of California, and his intimate knowledge both of vocational conditions and of junior college possibilities gives especial weight to his arguments. After distinguishing between occupa-

¹ L. V. Koos, *The Junior College Movement* (Boston: Ginn & Co., 1925), p. 120.

² *Teachers College Record*, May 1925, p. 724.

tions on the higher professional level which require at least four years of training of the university type and those on the middle level, Dr. Leonard continues:

In so far as universities concern themselves with professional education, their efforts will be confined to the higher and highest levels. Those are the permanent university fields. No other institutions can perform these services satisfactorily. And, in so far as junior colleges concern themselves with occupational education, their efforts will be confined to the middle level and, in like manner, this will be their permanent field.

Dr. Leonard then proceeds to point out that many lines of engineering, agriculture, commercial occupations, and other vocations requiring some collegiate preparation are in reality semi-professional in character and needing at most only two years of preparation. Inasmuch as correspondence schools and many nondescript proprietary schools are catering to a general desire for short courses in preparation for such vocations, these constitute a potential field for the junior college.

These statements from Leonard are in accord with the findings of Koos¹ as to the semi-professional character of a large proportion of the occupations in the field of engineering, commerce, and agriculture. Koos prepared a comprehensive list of the occupations in each of these lines, and then asked the deans of the prominent professional schools giving training of that type to designate the level of training upon which each belonged. The results in the case of engineering occupations were typical. The list of 104 occupations in that field was sent to more than one hundred deans or directors of schools of engineering with the request that they designate which of these were on the professional level—requiring at least four years of advanced training; which were on the semi-professional level—needing

¹ L. V. Koos, *The Junior College*, Education Series, No. 5, Research Publications of the University of Minnesota, 1924, p. 108.

only two years of collegiate training; and which were on the trade level—requiring no collegiate training. Replies were received from 84 of these officials. While there was much variation in their ratings, at least 50 per cent of them agreed in designating 43 of these occupations as belonging on the semi-professional level. Similarly, at least half of them agreed in ranking 32 other occupations as clearly belonging on the professional level.

In order to determine how the workers in engineering occupations were distributed among these groups, the writer undertook in 1926 an inquiry¹ among the larger corporations in California which employed trained engineers. The two groups of occupations, segregated in accordance with the findings of Koos, were listed but with no suggestion that the first 43 of these were classified as semi-professional and the remaining 32 as professional. These lists were sent to the employment managers of the twelve corporations carrying on the most extensive engineering projects in the state. Each was requested to indicate the number of men employed by his organization in each occupation listed. The replies in every case were prompt and carefully prepared. These showed 755 men employed in semi-professional work, and 289 employed in fully professional engineering work.

The fact that 72.3 per cent of the total number reported were employed in positions on the semi-professional level is in itself extremely significant, and goes far to substantiate this statement of Dr. Leonard: "In fact, it is reported that the majority of graduates of the engineering college enter positions of the middle level."

¹ Complete reports of the details of this and related studies by the writer, to which reference is made in this chapter, are to be found in his Doctor's dissertation on "The Functions of the Public Junior College," Stanford University, 1926.

The facts as revealed in this study are at least sufficient to warrant the conclusion that there is a strong demand for trained men on the middle level of engineering lines. The additional fact discovered by Koos that the four-year colleges were inclined to give consideration exclusively to students planning to complete the full professional course, and to offer little help or encouragement to those who might prefer a shorter period of preparation, indicates that there is not only a distinct need which the junior college can satisfactorily fill, but that it constitutes a unique field of educational service which is now being neglected. The present situation whereby graduates with full professional training must remain in positions where half the training would suffice is not only wasteful but productive also of discontent among the men, who resent the fact that the requirements and opportunities of their positions are not commensurate with their training.

Can pupils be interested in terminal courses?—One further point remains to be considered in connection with this function. It is frequently stated by junior college principals that their students show very little interest in terminal courses. In order to discover the attitude of high school Seniors upon this point, the graduating classes of four California high schools were asked to fill out a questionnaire which would reveal their preference as to various types of junior college curricula. The schools were chosen to represent a wide range in size, and none was selected which was located near a four-year liberal arts college or university. The results are shown in Table II.

From an examination of this table it is apparent that the major interest among high school graduates tends toward the four-year college courses and furnishes some justification for the impression that there is slight demand for the terminal two-year type. The striking uniformity among the three larger high schools in the percentage of pupils choosing each type indicates

that the samplings are probably representative of the attitudes among high school graduates generally. Some of the implications in connection with this situation will be examined in the subsequent section dealing with the fourth function of the junior college. It is apparent, however, from these data that there is a substantial group already interested in pursuing vocational courses in junior college—a group of surprising size when one remembers that college training has been almost invariably discussed in terms of four-year courses and that practically nothing has been done to interest high school pupils in the advantages of a briefer course.

TABLE II

TYPES OF JUNIOR COLLEGE COURSES PREFERRED BY GRADUATING PUPILS
FROM FOUR CALIFORNIA HIGH SCHOOLS

High Schools	Preferring Terminal or Vocational Course		Preferring Semi- Professional Course		Preferring a Course Preparatory to Higher Work	
	Number	Percentage	Number	Percentage	Number	Percentage
Fresno	54	29.4	28	15.2	102	55.4
San Jose	53	30.7	24	13.9	96	55.5
Visalia	20	33.3	3	5.0	37	61.6
Woodlake	5	55.5	..		4	44.5
Total	132	30.9	55	13.0	239	56.1

From the data obtained in the foregoing studies the conclusion is warranted that modern occupational requirements as well as the vocational and educational interests of the pupils themselves demand the offering of two-year terminal courses of the type which the junior college is peculiarly fitted to give. Such a conclusion is in harmony with the purposes of those who have been instrumental in furthering the junior college movement and with the judgment of competent educators. The offering of such courses may, then, be safely accepted as the third of the basic functions of the junior college.

The guidance function.—Abundant evidence that the need for guidance is recognized by colleges and universities is seen in the general adoption of such devices as "Freshman Week," orientation courses, advisory systems, and similar plans for helping lower classmen to get better started in their college work. But this responsibility, resting heavily though it does on the universities, presents a peculiarly direct obligation to the junior colleges. With the growing popularity of our high schools, an increasing number of their graduates are seeking higher education. Many of these are not well adapted to the task of pursuing a four-year college course. The university, intent on professional preparation, is loth to acknowledge any responsibility for those who cannot go beyond the lower college years. The junior college must accept the duty of guiding these into lines of study for which they are fitted and which they can profitably pursue.

This responsibility is more sharply marked in California than elsewhere, because the universities there decline to accept any but the superior or "recommended" high school graduates, approximating in number half of each graduating class. The non-recommended group, in great numbers, insist on an opportunity to undertake college work, and these constitute from 40 to 65 per cent of the enrollment in the junior colleges of California. The problem of wise guidance in the case of these students is a complex one but cannot on that account be evaded by the junior college authorities.

A clear statement of this obligation and some helpful suggestions in regard to meeting it are contained in the address delivered by President L. D. Coffman, of the University of Minnesota, before the 1924 meeting of the National Association of State Universities. He urged that there be on every university campus a genuine junior college for students first entering the university directly from high school. He proposed

that this have a separate administrative organization, and a specially selected "Freshman faculty," chosen on the basis of their fitness to guide and advise such students. He proposed terminal courses, wholly within this junior college unit, into which those should be sympathetically guided whose abilities did not warrant the longer courses. He explained some features which should characterize this unit and its functions in the following words:

If the junior college is created, it must have a director, a man who knows the high school and its problems, a man who is a good judge of teaching and who maintains that the first two years exist primarily for the students, not for contributions to science. Great care will be exercised by the director in choosing the teachers, and particularly for the Freshman year. He will see that the Freshman problems are under the control largely if not wholly of the faculty that teaches the Freshmen. This means that the teachers will be free to a certain extent at least from departmental control of the senior college. The organization will not be complete unless those who teach the Freshmen are willing to be advisers to the Freshmen.

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The efficiency of our higher institutions of learning in the future will be dependent, not upon the number they eliminate, important and necessary as that matter may be, but upon the extent to which they guide students wisely, train them in proper habits of thinking, become interested in their individual abilities and personal welfare, reorganize the materials of instruction, improve their methods of teaching, introduce programs of work adapted to modern society and to the needs of the students.¹

This statement may well round out our enumeration of the proper functions of a junior college.

¹ L. D. Coffman, "Major Problems of the Freshman Year," in *Transactions and Proceedings of the National Association of State Universities*, XXII, 40-42.

CHAPTER III

STEPS IN THE ORGANIZATION OF THE JUNIOR COLLEGE

MERTON E. HILL*

Before an attempt is made to organize a public junior college district where the institution must be supported in part by district taxes, there are certain preliminary steps which should be taken.

A survey of the local situation.—A thorough-going survey of the proposed district should be made. The high school population that will later be included in the junior college student body must be considered most carefully. Within the proposed district there should be studied the later records of all the high school graduates. This record should include the numbers that have gone on to higher institutions of learning and what the yearly cost to college students has proved to be. It should include a study of those who have not gone on, but who have entered occupational life. The study of these occupationally minded graduates should be made in order to determine what further education beyond the high school would advance them on the way to successful occupational careers. Finally there should be a thorough individual study of undergraduates in the high schools of the proposed junior college district, to discover what they intend to do following their graduation from high school.

A program of studies.—Following this survey there should be worked out, by those in educational leadership within the proposed district, a tentative program of studies setting forth what opportunities will be afforded prospective entrants to the pro-

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posed junior college. Such a program of studies should include at least one course of study that would duplicate the lower division courses of the higher institutions within the state. This course of study should include standard courses in English, languages, physical and chemical sciences, mathematics, and social studies. In addition to these academic courses there should be worked out vocational courses which will make the junior college a finishing school for that large body of young people who will go immediately into vocational life. These courses will depend in part upon the occupational outlook within the community where the junior college is located and in part upon the actual vocational needs which are most apparent.

Publicity.—Having gathered together a large body of information in the preliminary survey, and having determined upon a tentative course of study for the junior college, it is clear that the next step in the organization of the junior college is publicity. There should be set forth briefly and clearly in all local papers, and through special bulletins sent to the patrons of the district, such information as will make it possible for the voters of the district to see clearly their educational possibilities. Educational needs should be kept uppermost, but the cost of supporting these needs must be presented clearly and honestly. Possible cost and possible saving to parents should be presented side by side.

Type and extent of district.—When the time to organize the junior college has come, there must be determined several matters relative to the boundaries of the district. If the lines of the junior college district are to be coterminous with the lines of the high school district the procedure is comparatively simple. The high school board must determine which type of junior college is to be established. In one case, i.e., that of establishing a junior college department as for example under the California

law of 1917, a resolution of the board is all that is necessary. The board, by a majority of votes, may authorize the establishment of a junior college department within the high school. To illustrate this the following excerpt is taken from the minutes of the Board of Trustees of Chaffey Union High School, August 11, 1916:

Principal M. E. Hill brought up the matter of establishing a junior college and recommended that the Board take action favorable to establishing the work this year. President E. C. Harwood also recommended very strongly that the work be taken up.

After discussion it was moved by T. W. Nisbet, seconded by J. O. Mills, that we hereby establish a junior college and instruct Principal Hill to make the necessary plans. Carried.

It was moved by J. O. Mills, seconded by C. C. Graber that a suitable form of resolution establishing the junior college be prepared by Principal Hill and the same to be executed by all members of the Board, copies sent to the State Superintendent of Public Instruction, the County Superintendent of Schools, the State Board of Education, and any higher institution of learning that may be deemed necessary. Carried.

Also the following resolution was prepared and adopted:

Realizing the fact that the leading high schools of California have established post-graduate courses popularly known as Junior College Courses, and realizing that at the present time there are a large number of local graduates who are expecting to return to Chaffey Union High School to do post-graduate work, realizing further that a large amount of expense will be saved the patrons of the district, and recognizing the fact that the local equipment in laboratories and library will be ample for enlarging the work of the school, the Board of Trustees of Chaffey Union High School District hereby establishes a post-graduate department in its high school to be known as the Junior College of Chaffey Union High School District.

California Law of 1917.—The following extract is taken from the School Law of California for 1917, and is the basis of organizing junior college departments of high schools:

Section 1750b. Junior college courses. The high school board of any high school district having an assessed valuation of *three million dollars or more*, may prescribe junior college courses of study, including not more than two years of work, and admit thereto the graduates of such high school, the graduates of other high schools, and such other candidates for admission who are at least twenty-one years of age, and are recommended for admission by the principal of the high school maintaining such junior college courses. Junior college courses of study may include such studies as are required for the junior certificate at the University of California, and such other courses of training in the mechanical and industrial arts, household economy, agriculture, civic education, and commerce as the high school board may deem it advisable to establish.

California law of 1921.—If a junior college district is to be established under the law of 1921 it is necessary to follow a different procedure. The survey will show whether or not there were four hundred high school students in average daily attendance the previous year, and whether or not the estimated valuation was at least ten million dollars in the proposed junior college district. The high school board can then authorize the circulation of a petition, which must be signed by at least five hundred legal registered voters. This petition will be addressed to the County Superintendent of Schools. If, after checking the signatures, the County Superintendent finds an adequate number, he will then call an election within the proposed junior college district in order to let the voters determine, by majority votes, in favor of or against the organization of the proposed junior college district. The following excerpts from an actual junior college election are offered as illustrations of the procedure:

How one junior college was organized.—From the minutes of the Board of Trustees of Chaffey Union High School District, January 18, 1922:

Mr. Hill presented the matter of reorganizing the junior college to comply with the new state law. After some discussion it was moved by Mr. Nisbet and seconded by Mr. Jones that we take the necessary steps to reorganize. The motion carried.

It was moved by Mr. Berg and seconded by Mr. Jones that Mr. Hill be authorized to draw up the necessary resolutions and petitions for the reorganizing of the junior college. The motion carried.

The following letter to the County Superintendent of Schools illustrates further procedure :

Mrs. Grace C. Stanley
County Superintendent of Schools
San Bernardino, California

DEAR MRS. STANLEY :

We, the Trustees of the Chaffey Union High School District, in accordance with An Act to Provide for the Organization of Junior College Districts and for the Maintenance of Junior Colleges Therein approved May 27, 1921, do respectfully ask that a Junior College District of the District Type be formed with its boundaries coterminous with those of the Chaffey Union High School District to be known as the Chaffey Junior College District.

EDWARD C. HARWOOD, *President*
H. R. BERG, *Clerk*
J. C. JONES, *Trustee*
C. C. GRABER, *Trustee*
THOMAS W. NISBET, *Trustee*

The following petition was prepared, circulated, signed, and filed with the County Superintendent of Schools :

Mrs. Grace C. Stanley
County Superintendent of Schools
San Bernardino, California

DEAR MRS. STANLEY :

We, as qualified electors residing within the Chaffey Union High School District, in accordance with "An Act to Provide for the Organization of Junior College Districts and for the Maintenance of Junior

Colleges Therein" approved May 27, 1921, do respectfully ask that a Junior College District of the DISTRICT TYPE be formed with its boundaries coterminous with those of the Chaffey Union High School District to be known as THE CHAFFEY JUNIOR COLLEGE DISTRICT.

Signed:

NAME	RESIDENCE	ELECTION PRECINCT	DATE
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[Space for at least five hundred signatures.]

The law of 1927.—The following excerpts from the California law of 1927 will indicate the different types of junior college which may now be organized in that state:

SENATE BILL No. 430, *introduced by Senator H. C. Jones, of Santa Clara County, and passed by the Legislature of 1927.*

SECTION 1.—An act to provide for the organization of junior college districts and for the maintenance of junior colleges therein is hereby amended to read as follows:

SECTION 1.—Junior Colleges may be established as a part of the secondary school system of this state and junior college districts may be formed and organized in accordance with the provisions of this act. Whenever any junior college district is so formed and organized, the governing body thereof shall establish and maintain one or more junior colleges therein.

SECTION 2.—The types of junior colleges authorized under this act shall be as follows:

1. *The district junior college* organized in any high school district having a total average daily attendance of four hundred pupils or more in the high schools of such district as shown by the principal's reports of the preceding school year, and an assessed valuation of at least ten million dollars as shown by the last equalized assessment roll. A district maintaining a junior college of this type shall be known as a junior college district. Such district shall bear the name of the high school district in which it is organized.

2. *The union junior college* maintained in a junior college district organized so as to include two or more contiguous high school districts in the same county having a total average daily attendance of four hundred pupils or more in the high schools of such districts as shown by

the principals' reports of the preceding school year, and an assessed valuation of at least ten million dollars as shown by the last equalized assessment roll. A district maintaining a junior college of this type shall be known as a union junior college district. The name of such union junior college district shall be specified in the petition for its organization.

3. *The joint union junior college* maintained in a junior college district organized so as to include two or more contiguous high school districts in two or more contiguous counties having a total average daily attendance of four hundred pupils or more in the high schools of such district . . . and an assessed valuation of at least ten million dollars as shown, etc.

4. *The county junior college* maintained in a junior college district embracing all territory of the county not included in any other type of junior college district and having a total average daily attendance of four hundred pupils or more in the high schools of such district . . . and an assessed valuation of at least ten million dollars as shown, etc.

5. *The joint county junior college* maintained in a junior college district comprising contiguous territory in all of two or more counties, and having a total average daily attendance of four hundred pupils or more in high schools of such district . . . and an assessed valuation of at least ten million dollars as shown, etc.

The procedure outlined in the law of 1927 for the organization of a junior college district in California is quite similar to that laid down in the law of 1921. A petition, signed by five hundred or more qualified electors, asking for the formation of the district must be submitted to the county superintendent. Accompanying this petition there must be a separate petition signed by a majority of the high school board or each high school district proposed to be included. After verifying the names on the petition the county superintendent submits it to the state board of education for approval, and if approved by that body the question is submitted to the voters of the district or districts at an election. The election must be held on the last Friday in March, at the time for the regular election of school

trustees. If a majority of the votes cast favor the proposed junior college district the district is established.

Wherever the new junior college district is coterminous with a single high school district the high school board of such high school district constitutes the junior college board, and after organizing as a junior college board takes over the management of the affairs of the new junior college. If the junior college district established is a union, joint union, county, or joint county district, the county superintendent having jurisdiction must call an election for the first Friday in May for the purpose of electing a junior college board. At this special election five board members must be elected, one for a one-year term, two for two-year terms and two for three-year terms.

Should the average daily attendance of any junior college, organized under the act of 1927, fall below seventy-five students, in any year after the second following its organization, the junior college lapses, its property must be sold, and any balance remaining must be distributed between the high school districts which constituted the junior college district.

Powers and duties of junior college boards.—The powers and duties of junior college boards are the same as those assigned to and exercised by high school boards. They are empowered to:

Prescribe junior college courses of study, *including not more than two years of work*, and admit thereto graduates of any high school of California, the graduates of other high schools and such other candidates over eighteen years of age as may be recommended for admission by the principal of the junior college; *provided*, that such students as are not residents of the junior college district or of the same or an adjoining county shall be admitted to the junior college only upon payment of a tuition fee to be fixed by the junior college board. Junior colleges may provide courses of instruction designed to prepare for higher institutions of learning; courses of instruction designed to prepare persons for agricultural, industrial, commercial, home-making, and

other vocations; and such courses of instruction as may be deemed necessary to provide for the *civic and liberal education* of the citizens of the community.

The junior college board shall adopt regulations governing the organization of such courses of study and shall prescribe requirements for graduation from such courses; *provided*, that the minimum requirements for graduation from junior college courses of study shall be at least sixty credit-hours of work. A credit-hour is hereby defined as approximately three hours of recitation, study and laboratory work per week, carried through one half-year.

All courses of study prescribed in accordance with this section shall be subject to approval by the state board of education, and no state funds shall be apportioned to any junior college district on account of the attendance of students enrolled in junior college courses, unless such courses have been approved by the state board of education.

Other provisions of the California law of 1927 have to do with attendance, tax levy for support, bond issues, affiliation with the University of California, and taking over of junior college departments by state teachers colleges. *Attendance* must be kept in the same manner as for high schools, since state and county aid are based on statistics of average daily attendance. *Budgets* must be made out and submitted to the county superintendent as a basis for tax levys by the supervisors of the county. *Bond issues* to cover cost of buildings, sites or other educational facilities, are accomplished for the junior colleges by a similar procedure to that followed by the high schools of the state. Junior college departments of high schools may be *farmed out* or taken over by teachers colleges by mutual arrangement between the boards concerned. Junior colleges, through their boards, may also enter into *affiliation* with the University of California. When such an arrangement is entered into the courses of the junior college intended to prepare for advanced university standing may be visited, inspected, and accredited, and the qualifications of teachers to give such courses may be passed on by university inspectors appointed for that purpose.

The Jurisdiction of the State Board of Education over the junior colleges is indicated by the following from the 1927 law:

SECTION 16.—The State Board of Education shall have power and it shall be its duty to adopt rules and regulations fixing the minimum standards entitling junior colleges to state aid, and shall annually investigate each junior college to determine whether it has met such standards.

The fact that the state board of education has to pass on all petitions for the organizing of new junior college districts, and must also approve courses of study and standards for graduation is a safeguard against the unwise multiplication of junior colleges in districts which might not be able to support such institutions adequately.

State and county aid to junior colleges.—If a high school district, having three million or more in taxation background, establishes a “junior college department” as authorized under the law of 1917, it receives just the state and county aid to which high school districts are entitled. That is to say, it receives \$30 per student in average daily attendance from the state, and \$60 per student in average daily attendance from the county, or \$90 per student from state and county combined. The balance of its budget must be raised by local taxation upon the assessed valuation of the high school district. If the junior college is a district, union, joint union, county, or joint county junior college district, organized under either the law of 1921 or that of 1927, it receives from the state the sum of \$2,000 per year for being a junior college district, and \$100 per student in average daily attendance.

Tuition.—It is also entitled to charge a tuition for non-resident students outside of contiguous counties. For students coming from districts in their own or other counties where there is no junior college, the law of 1927 provides as follows:

SECTION 15.—Not later than the first Monday in September of each year the superintendent of schools in each county in which there is not a county junior college shall certify to the board of supervisors and to the county auditor of such county, the total net cost, less state aid, for educating during the next preceding school year all junior college pupils residing in such county and not in any junior college district, and the estimated amount needed for such purpose for the current year. . . .

The superintendent of schools of a county having junior college pupils attending junior college in *another* county shall draw his order on the county auditor in favor of the superintendent of schools of the county in which such students attend junior college for any money belonging to any junior college outside of his county as provided in this section.

Under this provision the Chaffey Union District in 1927 received from Los Angeles, Riverside, and San Bernardino counties, the sum of \$23,000, and San Francisco County, where there is no junior college, paid to San Mateo and Marin junior colleges, in the neighborhood of \$50,000 to cover the cost of junior college students attending those institutions from San Francisco County.

Cost per student.—The cost of junior college education has been found to be from about \$200 to about \$450 per student. From the above-described provisions for state and county aid in California it will be seen that from one-fourth to one-half of the cost is covered by state and county aid. This enables the junior colleges to provide better equipment and better teaching staff than would be possible if the entire burden of support fell upon the local district.

Value of legal recognition and state aid.—The matter of legal recognition and state aid of public junior colleges is of vital importance to the junior college movement in a given state. In the state of Washington, where there is no legal recognition of the junior college as a part of the state educational system, and consequently no state aid to junior colleges, there are only two

struggling public junior colleges. In California, where the legal recognition and state aid is as above indicated, there were thirty-one public junior colleges, enrolling some six thousand five hundred students, and having an average daily attendance of about five thousand students, according to the statistics of the Commissioner of Secondary Education for 1927.

The junior college movement in a certain county.—A good idea of the preliminary procedure accompanying the organization of a junior college may be had by a brief description of such a movement in the county of "X," state of California. This county had one junior college, a junior college department of the high school located at the county seat, which had been "farmed out" to the local teachers college. So many students were seeking admission to the junior college division of this teachers college that it was becoming a serious problem how to take care of them and still do the regular work of the teachers college. Partly on account of the numbers applying and partly on account of the fact that the teachers college was receiving only \$82 of state and county aid per student, because its junior college students came from a "junior college department" of a high school and not from a "junior college district," it was proposed that a county junior college be organized to take the junior college off the hands of the teachers college.

Project discussed.—With this end in view a meeting of all the high school trustees in the county was called. All interested high school principals and a number of prominent citizens not connected with high schools were invited to attend. Speeches were made by the Dean of the junior college division of the teachers college, by the State Superintendent of Public Instruction, by the County Superintendent, and by several others. It was pointed out that a county junior college would have all of the taxable property of the county, some hundred and twenty million dollars, behind it, and that, including state aid, a junior

college to accommodate one thousand students could be provided at a very small additional tax burden. Objections were raised by representatives of high schools at the extreme southern and extreme northern ends of the county, on account of the distance which their students would have to travel to reach the county junior college located at the county seat. The question was raised whether a county junior college board could maintain more than one institution. After discussion a committee of high school trustees, representing all high school districts in the county, was appointed to canvass the entire situation and report at a later date.

Difficulties encountered.—Several weeks later another meeting was called at which the committee made a report in which details of cost, amount of increase in taxes, advantages and disadvantages of the county junior college project were set forth. It was also reported that the district in the southern part of the county had practically made up its mind not to go in on a county project. This meant that the county project could not proceed, as it requires a majority vote of every high school board in a county to initiate a county junior college movement.

The high school district in the northern extreme of the county, which had been fearful lest the organization of a county junior college would shut it out from ever having a local junior college then began to try to interest several adjacent districts to enter into a union district plan. One large district, with over ten million tax valuation of assessable property, adjoined this district but was in another county. At that time there was no provision for "joint union" junior college districts, but as the legislature was in session it was proposed to have the law amended to permit the formation of such districts. This resulted in the 1927 amendment providing for "joint union" and "joint county" junior colleges. Now the district of "X" county in the southern end can unite with a junior college district just

across the county line to the south, and the district in the northern part of the county can, if both districts wish to do so, unite with the large high school district to the north for junior college purposes.

Net results.—While these meetings were being held a great deal of publicity was given to the junior college movement in the local press, speakers were invited to address Parent Teachers Associations, Rotary Clubs, and other luncheon club meetings, high school principals made local surveys, to find out how many of their students who wanted to go on to college would be unable to gain admission to existing colleges, and careful estimates of the cost of conducting the proposed junior colleges were made. Hence, although the county junior college project, which was responsible for the beginning of the discussion, did not carry, it was directly responsible for important changes being made in the existing state law, and in stirring up several communities to make more careful investigation of the possibility of securing local junior colleges to meet their pressing educational needs.

In conclusion, then, it may be said that the steps to be followed in the organization of a public junior college are:

First, a survey of the local situation covering high school attendance, probable number interested in attending the proposed junior college, adequacy of taxation background of proposed district plus state and county aid to afford ample support.

Second, a campaign of education and publicity to acquaint the constituency of the proposed junior college district with the advantages and also the probable cost of the new educational unit, as well as the general scope of the work which it is expected will be offered.

Third, securing endorsement of high school boards of districts proposed to be united for junior college purposes, circu-

lating necessary petitions, and following these steps through the offices of County Superintendent, the County Board of Supervisors, and the State Board of Education.

Fourth, the holding of the necessary election for organizing the district, when campaign committees must be organized in each elementary district to get over the facts and bring out the vote.

Fifth, the election of a junior college board, its organization, and the carrying out of preliminary arrangements for adequate housing, securing equipment, and electing dean, president, or other administrative officer, and faculty.

Sixth, working out by administrative staff and faculty of appropriate courses of study both to meet the needs of the local community and to fulfill the preparatory and other functions of the standard junior college.

Seventh, provision for taking care of student body both in the matter of appropriate curricula, housing, libraries, laboratories, etc., and in the matter of adequate guidance and supervision.

CHAPTER IV

THE JUNIOR COLLEGE FACULTY

CHARLES S. MORRIS*

Importance of well-qualified teaching staff.—Among the most important features to be considered in the process of establishing the junior college as a fundamental unit of a state's system of public education, none can be compared in importance with that of the personnel of the faculty. The ultimate progress of this new institution in American public education will depend largely upon the type of men and women who are to serve as instructors.

The nature of the junior college work demands rare qualities of strength of character, inborn capacity, sound understanding, and adequate training. It is because junior college teachers are entering a field of educational pioneering that they need all of the qualities above mentioned plus the spirit and vision of the pioneer. The pioneer type of service which is necessary is especially evident since junior college training is not to be confused with a simplified collegiate education on the one hand, nor on the other with a sort of glorified high school education. It is a field unique in itself.

Furthermore, the junior college may not duplicate the corresponding institutions in the various European educational systems, for in this country the principles of democracy are being worked out on an entirely different plan. The educational system which will prove effective here can not be the same, for our schools are the fundamental agencies in the perfection of our form of government. The men and women who will compose the faculty of the junior college must enter the field with a

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full realization of the pioneer character of the work which they are to do, and with the heart and will to dare in order that they may solve the problems which the junior college movement presents. With these ideas in mind, it will be seen that the selection of a junior college faculty is of necessity a complicated process in which the selection of the individuals who may have the personal characteristics, training, and experience is but the starting point.

In discussing the subject of the junior college faculty, three primary divisions will be considered: first, the general character and personality of the men and women who will carry the junior college forward successfully; second, the faculty of the junior college speaking collectively; and third, a more or less detailed statement of the training, teaching load, and salary of men and women now employed in the junior colleges.

General character and personality.—The typically successful junior college instructor has real intellectual capacity, which has been directed through definite fields of training to attainment, both in quantity and quality. He is the type whose ability and training have carried him through the basic fields of thought and endeavor which our higher institutions reward with the degree of Doctor of Philosophy. While many such do not hold that degree because of the time spent upon the science of instruction in preparation for service in the teaching field rather than in the field of research, it is a great advantage for the junior college teacher to have had teaching experience. It is through this experience that a definite growth in mental alertness, technical skill, and understanding is developed, which enables the instructor to deal efficiently with students who are seeking guidance as well as instruction in a given field.

Too much of our secondary school training in the past has been concerned with the acquisition of information, rather than with the determination of basic and fundamental facts upon

which the thinking individual can logically arrive at decisions for himself. On this account the junior college instructor should be especially strong in his intellectual honesty and integrity. He should also be strong in his discernment of what is true and fundamental, rather than merely the reservoir for a vast encyclopedic mass of information. His teaching thought should be primarily that of instruction in methods of expanding and developing appropriate procedures from established basic principles. As intimated above, the attitude of the instructor who meets necessary technical qualifications should be also one of genuine interest in teaching as an opportunity to serve his nation and fellow-men by bringing out that which is best in the young manhood and young womanhood instructed by him. A profound belief in young men and women, and in the survival of democracy is another essential attribute of the worthwhile junior college teacher.

Of course, character and personality cannot help but be the outstanding characteristics of men and women who satisfy the specifications here named. This must necessarily be so on account of the close personal touch which the junior college instructor has with his students, which makes it incumbent upon him not only to possess but to radiate character and personality. This demands physical vitality. Everything else being equal, the teacher who has participated in competitive sports and still has a keen interest in them or who is capable of leading in other student activities is a better teacher because he is better qualified to understand and enter into the younger person's point of view than the teacher who is interested only in the subject which he teaches.

As a final point in connection with the individual character and personality desired, it will be found to be true that the persistency with which men have worked toward life goals which they have set up for themselves is a very important

indication of character. In fact, a man who has, for example, chosen the engineering profession, and, after following the same for a time, finds that by obtaining certain units in "education" he may qualify for a teaching position and thus obtain more money than he would obtain in the engineering profession, is not on that account a very desirable man to hire for engineering instruction. If we, in a democracy, measure our joy and interest in earning in terms of the financial returns only, we shall not develop the type of citizen whose primary compensation comes in the realization of work well done. While engineering has been mentioned, it is not implied that this field harbors the "revenue only" type more often than do other occupations. Even in the teaching profession itself it is often true that advance from the high school type of instruction to that of the junior colleges division is sought not as a matter of increased interest in the subject-matter or as an opportunity for social service, but in the hope that the work may be easier and the compensation greater.

The faculty as a whole.—It is my belief that the junior college should, in so far as possible, be a school of experience for those who attend. To this end it is all important that the faculty taken collectively should be capable of offering courses of a collegiate character in a sufficiently broad field to guarantee to the entering student a variety of courses in which he may "find" himself and then proceed in his chosen field. While the lower division work in the university is distinctly "preparatory" in character, the work of the junior college must also be adapted to "discovery." It must also serve the purpose of adequate "preparation" both for continued college training and for productive membership in the community for those who elect to terminate their college education at the close of their junior college course.

Since the personnel of the student body tends to be provincial

in type, because most of the students who come to any one junior college come from a distinctly localized area, the faculty should be representative of a wide geographical area and have had their training in strong, widely separated educational institutions. In this connection the value of travel, both national and international, should be emphasized. The value of attendance upon widely separated colleges cannot be overestimated as a means of eliminating this tendency to provincialism, which is one possible point of attack for those opposed to the junior college movement.

Within any well-chosen faculty there should be a sufficient number qualified by nature and training to assume positions of leadership in the outstanding interests and activities of the community and who have the foresight and understanding necessary to actuate a community along such lines as will make it a better place in which to live, not only for the youth, but for all living within the sphere of influence so created.

Finally, the faculty should in a sense be representative of the various types of minds and personalities with which individuals will subsequently come into contact. There should be those who are clever and scintillating offset by those who are slow but sure; those who feel it a matter of patriotism that our form of government should remain as it is in its entirety, offset by those who have no less patriotism but who feel that a static democracy is a losing cause unless an intelligently guided growth and development take place; those who are enthusiastic and theoretical offset by those who are matter-of-fact and practical; and so on.

But the guiding principle of all should be a fundamental belief in the vitality and permanency of democracy and of its institutions, and that their own individual part in the program of its development is exceeding great, for the reason that the junior college as such is to become one of the cornerstones in the development of the personnel of that democracy.

Training, salary, and teaching load.—The generally recognized unit of measure of the training of teachers has been the type of degree held, in the case of the universities, and, in the case of the high schools, the type of teaching certificate.

Scholastic degrees of teachers in universities.—A survey of the conditions in California's leading universities shows that in the case of the universities, approximately 50 per cent of the instructing staffs hold Doctor's degrees, and that about a fifth hold Master's degrees, with approximately one-fifth holding Bachelor's degrees, the remainder having no degrees at all. A check on the various departments indicates that the Doctor's degree is considered essential, or nearly so, for the departments of language, literature, pure science, mathematics, history, economics, and political science; while in the fields of engineering, art, music, and home economics the higher degrees are less prevalent, and in many cases are not held at all.

Degrees of high school teachers.—In the case of the high schools there are relatively few teachers who hold the Doctor's degree, with a very considerable number holding the Master's degree, and perhaps there is an almost equal number who hold no higher degree than that represented by the diploma of graduation. It is interesting to note in this particular, however, that the state at the present time requires a year of graduate study in a university, including eighteen units in Education, which is not far from the equivalent of a Master's degree in point of time and specific training. In other words, most of those teaching the standard high school subjects, even though they do not hold the Master's degree, have had equivalent training. Teachers in the departments of home economics, commerce, and shop are, in the majority of cases, those who have no degrees at all, but they have satisfied special certificate requirements, and have taken a sufficient number of units in the Department of Education to qualify them for teaching service.

Degrees of junior college teachers.—Reports from junior colleges show that approximately 7 per cent hold the Doctor's degree. The Master's degree, plus the preparation necessary for holding the high school teacher's certificate, is held by approximately 40 per cent, and those holding the Bachelor's degree, plus the teaching certificate, approximate 36 per cent, leaving 16 per cent without a degree, but holding special certificates for teaching the subjects in which they are proficient. It is also true that practically all of the full-time junior college instructors have registered for post-graduate work in leading institutions whose special work has been offered by professors who are outstanding in their fields of work. This is a material improvement, in so far as training is concerned, over the training of the high school teachers, but from the academic point of view is materially lower than that of the universities. It is interesting to note, however, that the teachers in both high schools and junior colleges have had very definite training in the art and practice of instruction, which is not required of the university professor, and which, in the case of those obtaining the Doctor's degree, has been almost entirely omitted. At this point attention should be directed to the fact that when the university professor proceeds directly from his field of research as a student into the direction of student research work in the university, the students coming under his direction do not require the skill which is necessary for the guidance of less mature minds, but when such a person takes over what is essentially instruction work, his students are apt to suffer on account of his lack of teaching skill.

Primary purpose of junior college teaching.—Referring, then, to the primary purpose of the higher university work, in other words, research work, we see that the preponderance of the Doctor's degree, which is supposed to be a measure of the ability to engage in research work, is necessary, fitting, and

proper. One of the primary functions of the junior college, however, is to lay the necessary groundwork in fundamental training, and to qualify those students who are adequately equipped mentally for continuing their work at a later date in the universities. Another function of the junior college, for those vocationally inclined, is to enable such graduates to enter directly into the field of productive service in the communities from which they come. This is primarily a problem of guided study and successful training, and is essentially a part of the technique of instruction. Our figures tend to show that even the existing staffs of our junior colleges are as well qualified as are the staffs of the universities for carrying on the special fields of service for which they exist. The success of the existing junior colleges in California has amply demonstrated that the principles which have been outlined above for the junior college have been efficiently carried out, considering the type of work which is expected of them.

Research methods desirable.—These facts, however, simply take care of the present. As time goes on it will be more and more the problem of the junior colleges to introduce the student to research methods of study, and to demonstrate that this method of procedure can be followed for even the lower division foundational work. The junior college instructor of the future must expect to take additional advanced work in the special field in which he instructs, subsequent to his having qualified for the teaching credential. This advanced work should be in the nature of research study, the general direction for which could be obtained during the summer months. I believe the governing bodies of junior colleges will be amply repaid for any moderate expenditures which may be made in an effort to provide for the continuance by the instructor of his research study during the junior college school year. Such work is both a recreation to the instructor and a fountain source of his stimulation of stu-

dent enthusiasm, to say nothing of his personal gain in prestige. The opportunity for research is the consideration which causes many men and women with advanced degrees to stay in university work, accepting the comparatively low compensation which the university offers to instructors through a long probationary period. If provision could be made for research work it would induce many of the best university-prepared instructors to come to the junior colleges. While many will continue to enter junior college work after having had high school teaching experience, in practically no instance should the high school teacher step directly into the junior college work without first becoming for at least a year a regular registrant in some standard university, having enrolled for research work along the lines of the field in which he subsequently expects to instruct in junior college. This will hasten the ideal condition in which no junior college instruction is given by a teacher, any considerable part of whose time is taken up with instruction of high school classes. It is just as essential from the standpoint of the high school as for that of the junior college, for nothing is more destructive than for the instructor to "shoot over the heads" of the class, and nothing is more stultifying than for a college student to be limited in his scholastic requirements to the standards usually set for the younger and less mature high school pupils. Members of junior college faculties agree, concerning the results of teaching classes of widely different maturity, that it is practically impossible to teach successfully if one is required to teach a 10B high school class one hour and a 14A junior college class another hour. Some of the best high school teachers who have been taken over into the junior college could not readjust themselves to the college quality and method of instruction. Those who did succeed in making the adjustment did so only after summer school experience at the university. A careful survey in this regard would furnish evidence of significant obstacles in

the path of the 6-4-4 plan for the organization of elementary and secondary education.

Salaries for junior college teachers.—Since there are but few junior colleges that are operated entirely separate from some other educational institution in the community, it has been almost impossible to obtain any conclusive figures as to the amounts paid for junior college service. The highest salary paid for regular instructional duties is \$3,500, and this amount is rarely paid to individuals who do not also serve in some executive capacity, such as the headship of a department. The highest salaries for instruction appear to be in the neighborhood of \$3,300. In checking over a large number of cases, the average high salary is slightly in excess of \$3,000. The lowest salaries quoted for full-time service, and of these there were very few, averaged \$2,000. The average low salary for a number of institutions was \$2,225, with the general average of \$2,685 for all non-administrative teachers. These figures show that the schedule for junior colleges is considerably below that of the larger universities, although the starting point in the larger universities is as low as \$1,800, with a long probationary period at between \$1,800 and \$3,000, but with the ultimate for full professorships varying from \$4,000 to \$7,500. It is, however, significant that the salaries of junior college teachers are considerably better than the salaries for regular high school teachers, and compare favorably with the salaries of instructors and assistant professors who do most of the lower division teaching in the universities. For those high school teachers, who also instruct in junior college classes, the salary is considerably better than for other teachers in the same schools who are not offering work of collegiate grade.

High school teachers aspire for junior college positions.—The question of salary is going to become most difficult to solve, since a considerable number of teachers, at present and for some

time past engaged in high school teaching, are making the effort to attain the Master's degree with the definite purpose in mind of becoming junior college teachers. The result will be that there will be many such teachers applying for a reasonably limited number of positions with a corresponding effect upon the salary scale. There appears to be some reason for the suspicion that many high school teachers are thinking of junior college work as work which will not be so arduous, and for which they will probably receive better compensation than they are now receiving. As a matter of fact, the schedule of fifteen college units, handled in a genuine college manner, is so taxing upon the individual that but few of the junior college instructors with whom the writer comes in contact are able to finish the year without being in a decidedly run-down condition.

The problem of improving personnel.—One of the problems which junior college administrators of the next few years will face is maintaining and improving the teaching personnel to the point where the relatively higher salaries which are now paid will continue to be justified, and where the quality of those entering the junior college field will be of an increasingly superior character. Since the question of the proportion of men engaged in teaching is most closely associated with the problem of salaries to be paid, every effort should be made to make what is now the higher limit of salaries for regular instruction the customary figure for at least the larger institutions. To make it possible for those entering the junior college field to reach such a mark will enable junior colleges to obtain the services of many worthwhile and energetic men and women who now feel that they should plan on going into work in the larger universities or into the general field of commerce and business.

While the figures given above indicate the present condition in the matter of the salaries of junior college teachers, the junior college administrators are confronted with very serious prob-

lems in the immediate future. The rapid development of junior colleges made an immediate demand for capable men and women in a field for which there had been no definite specifications for preparation. The result was that many of the strongest high school teachers began to branch out of their real field into the higher institutions, a place for which they were largely unprepared either by training or experience. Since the California teacher tenure law is operative in all state schools except the university and teachers colleges, it means that this pioneering force of fine men and women who have started these colleges are going to continue in a field for which they did not make special preparation, and yet, through seniority, will be ranking members of their respective faculties. This will tend to close the positions of leadership to the outstanding men and women now being prepared for this work. Such a situation is unfortunate and its correction will prove to be a difficult administrative problem.

To further complicate matters, there seems to be an almost universal acceptance of the present salary schedule as a principle for determining salary increases. Even though complicated systems of crediting time of service, training, summer school work, travel, etc., are used in these schedules, undue importance is attached to the tangible time and schooling elements and too little to the intangible elements of character, personality, and student and community service and leadership.

In short, the junior college principal must establish his goals in the various departments, discard the idea of the salary schedule, and obtain the services of those men and women who will enable his college to reach the goals he has determined on. Where there is a high school in the same building or system, all except those who really rise to their opportunities should be returned to the high school field. Where the college is a separate institution, salary advancements should cease when the commu-

nity is paying as much as a replacement would cost. Such actions are often taken at the cost of friendships unless each and every one of the faculty is free to discuss and given an opportunity to understand the problems involved. Those who understand are the ones capable of being welded into the type of faculty which places service first and salary second. The principals who can accept and discharge such obligations are the men who will give a distinctiveness to the junior college movement and help to create the most significant unit in the American educational system.

Salaries of administrative staff.—No adequate figures were obtainable concerning the administration staffs, since almost without exception the duties of the principal are divided between junior college and some other institution. The salaries in such cases range from \$3,800 to \$7,500. The salaries of deans of institutions over which there is also a principal vary from \$3,000 to \$4,500. In such cases, the office is comparable to that of a vice-principal of a high school, the salaries ranging from three-fifths to four-fifths of the salary received by the principal.

Teaching load.—Owing to the fact that most of the junior colleges are run in conjunction with other educational institutions, it is again practically impossible to obtain accurate figures which would represent the total number of recitations per week that are carried by the average junior college instructor. In general, however, one unit of junior college teaching is the equivalent of one and two-fifths high school units in assigning junior college and high school classes to the same instructor.

Units of instruction.—In the few institutions which are operated separately, the number of units varies from twelve to twenty with fifteen as an average, and the number of preparations required from two to six with four a common number. In some cases the courses offered are of a diverse nature, with the

result that any adequate preparation demands an extensive amount of reading which should normally have been accomplished during the training period of the teacher. This condition is unfortunate, but is nevertheless absolutely necessary when junior colleges are organized as separate units, and where they have a limited registration. The smaller junior colleges, which at first are operated in conjunction with large high schools, have the temporary advantage of utilizing the best teachers in the high school for the work which they are best prepared to offer. This advantage diminishes as the number of students enrolled and the number of full-time instructors increases. In the cases of the larger junior colleges, the number of courses offered by an individual teacher is smaller, and the subject-matter is more nearly related in type.

Problem of teaching load involves many considerations.—In order to come to any accurate conclusions, the teaching load should not only be measured by the number of units of work offered, together with the number of separate types of preparations required, but should also be measured by the character of the work itself. The number of students enrolled, together with the amount of paper-correcting, number of student conferences, and other features involving personal attention, should also be taken into consideration in assigning classes to instructors. A check on this phase of the work of junior college teachers shows that the actual student-hour teaching load varies from the highest, which amounts to 611 student-hours per week, to the lowest, which was 40 student-hours per week. The average of the high number of student-periods was approximately 485, while the average low number was 60. The general average is not far from 250, though in the cases of two junior colleges that were operated as separate institutions, this general average was 220. These figures indicate great inequalities in teacher load and demand administrative attention.

Where the heaviest load falls.—Reports turned in by a large number of junior college teachers show that the highest number of student-hours occurred in the departments of language, history, political science, and economics, with English not far behind. Mathematics and various science courses and other specialized courses have the lowest number of student-hours per teacher.

In an effort to reduce the load for English composition the instructor's time is figured as time and a half. Thus ten units of composition are equivalent to fifteen other units. Since laboratory time takes three sixty-minute hours for one credit hour, the writer has followed the plan of counting two hours of laboratory as equivalent to one hour of recitation. Those who are heavily loaded with class work do not have as much administrative work to do. These three schemes for equalizing the teachers' loads are the ones most apt to be found reasonably successful.

The average university professor is more or less appalled when he notes the number of hours, the number of preparations, and the number of student-hours which the average junior college teacher is expected to carry. On the other hand, the average high school teacher, unless he is familiar with the work, envies the junior college teacher for the lightness of this load. The general public, which is paying the bills, has a feeling that the amount of work assigned to both junior college or high school teachers is below that done by men and women in other walks of life.

The character of service rendered by the university professor too often makes him primarily an investigator and research worker and secondarily an instructor. To compare the university professor's load with that of the junior college instructor, and to consider only the teaching load, is manifestly unjust, and an investigation would probably show that the university

professor who is handling a limited number of units and a limited number of student-hours as his educational load is nevertheless worked to the limit of his capacity in performing the services which the university expects of him. It is simply a different kind of work.

Dangers in over-loading.—Experience will no doubt show that a reduction in the average number of class sessions per week is to be desired, and in the end will be economically advantageous. But institutions which undertake to lighten the instructor's load by providing correctors and readers in the various classes, will make a very definite mistake. The reading and correcting of papers is a fundamental feature of the teaching process by which the instructor acquaints himself with the individual capacities and characteristics of his students. Where courses have a heavy enrollment, thus increasing the teaching load, they should be subdivided so that the lecture method will not become a temptation, and so that the number of student-hours per instructor may not become so heavy that close personal and individual attention cannot be given to all. This is fundamental in junior college teaching.

The time and effort demanded of the teacher varies greatly in the different departments of instruction. Some subjects require an enormous amount of preparation in order to keep up to date with current economic and political conditions; others require painstaking and tedious paper-correcting; still others require careful preparation of laboratory experiments and long laboratory hours.

The determination of the proper teaching load to be assigned to any individual seems to fall right back on the instructor himself, who must conscientiously answer this question, "Granted that I have average health and vitality and the preparation which I should have had for the work I am offering, am I devoting too much of my energy in the educational service which

I in good faith have contracted to render?" If the answer is in the affirmative, every effort should be made to enable the instructor concerned to so adjust his burden that maximum results, considering the existing circumstances, may be obtained.

Summary.—The teaching forces of the junior colleges are of paramount importance, for by their efforts will be evolved a fundamental and unique educational unit specially developed and operated to further the purposes of the American system of democratic government.

In selecting any one faculty it is essential to consider individual types and characters—the faculty as a composite whole—their training, teaching obligations, and compensation.

Essential personal attributes are: capacity, training, technical experience, character, personality, the pioneer spirit, intellectual integrity, physical as well as mental vigor, and persistence in following teaching as a life work.

The faculty as a whole should bring variety in subject-matter, experience, and geographical interest, be leaders in community life and enterprise, and be representative of the various fields of thought and action.

The present junior college instructor is better prepared than the average high school instructor, but is less adequately prepared, academically speaking, than the college professor, but he has had professional courses in the art of teaching, which the college professor, in many cases, does not have.

The Doctor's degree of the college professor is a mark of attainment in research, a primary function of the university, just as the teaching credential is the measure for capacity in instruction, the primary function of the junior college.

Elementary types of research study must find their place in any good secondary school work, and instructors should be encouraged to do research work in their own specialties.

The difficulty experienced by teachers in accommodating

themselves to classes of considerable divergence in maturity may prove to be an obstacle for the 6-4-4 plan of elementary and secondary school organization.

The salaries for junior college teachers are higher than for regular high school instruction, but lower than can be attained in the universities.

Salary standards will be difficult to maintain because of the efforts of those who have long been high school teachers wishing to enter what they believe to be lighter or more enjoyable work for higher salaries.

Administrators may forestall such results by demanding a period of university attendance during a cessation of the high school instruction. This is necessary in order to establish collegiate as distinguished from high school standards of attainment in teaching as well as in mastery of subject-matter.

The California tenure law and the acceptance of the salary schedule is forcing a serious problem upon the junior college principal who must weed out the unprepared who are now in junior colleges owing to the sudden and unexpected demand for junior college teachers.

The average number of hour units taught is fifteen, with four different subjects the usual number of preparations.

The smaller junior colleges make use of their best prepared teachers along the lines of their strongest preparation. As the colleges grow, the assignments of work become more exclusively of college grade, and the number of unrelated preparations is reduced.

The student-hours, daily preparations, and volume of paper-correcting should all be material factors in estimating teacher loads.

No immediate radical reduction of the existing teaching loads may be expected, since junior college communities are not convinced that the burdens now carried by teachers are excessive.

To reduce the instructors' load by providing "correctors" and "readers" is a mistaken policy, for it leads away from the principle of close personal attention to students, the strongest point in favor of the small college.

Approximately the entire time and energy of the junior college instructor belongs in the field of instruction service during the college session, and he is better qualified to pass judgment as to just what load is best for him to carry, everything considered, than is anyone else.

XThe junior colleges are bringing into the field of education an ever-increasingly well-prepared group of men and women. The technical character of the work of these teachers is developing a type of teaching technique adopted to the functions of the junior college.

This is going to enable the higher institutions to reserve their facilities and energies for the advancement of higher training, research, and research guidance—fields for which they are specially endowed both in facilities and by reason of the training of their staffs. The instructional type of training will be left to the junior colleges, which are becoming more and more capable of performing this task.

CHAPTER V

THE JUNIOR COLLEGE CURRICULUM

FRANK WATERS THOMAS*

1. The basis for determining the curriculum.—The curriculum of any collegiate institution presents the most obvious index of the scope and character of the work which the college is undertaking to perform. The aims and purposes of the institution will depend, for their fulfillment, very largely upon an appropriate curriculum. Consequently, the basis for selecting and organizing the courses which are to make up the curriculum must be found in the functions which the junior college is attempting to fulfill. Since these functions received somewhat detailed analysis in chapter ii, the classification developed in that connection will be used as the basis for a discussion of the curriculum.

2. The curriculum in its preparatory aspects.—Inasmuch as the junior college had its origin in the desire of certain communities to duplicate the lower courses in the universities and thus prepare students for advanced work when they should later transfer to the higher institution, it is not surprising to find that this has been the paramount consideration in arranging the courses of study. Koos,¹ in his comprehensive survey of the junior colleges, found very little evidence of any other serious aim in the selection and arrangement of courses. Although it is generally agreed that the California junior colleges have shown somewhat more independence and initiative in regard to

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¹L. V. Koos, *The Junior College*, Education Series, No. 5, Research Publications of the University of Minnesota (2 vols.), 1924.

their curricula than has been the case in other sections, even in that state the preparatory function has received first consideration. The situation almost everywhere has been well described by A. L. Gould in an article written for the *Sierra Educational News* in 1916, while he was principal of the San Diego Junior College. He wrote:

In every community where a junior college has been started the work in its inception has had a primary aim: the duplication as nearly as possible of certain courses at the University of California. This has been done with the avowed intention of making it possible for those who, through some series of misfortunes or through the desire of their parents to keep them at home longer, cannot go away to college, to do a part of their college or university education nearer home.¹

Meeting lower division requirements.—To the extent that junior colleges are concerned primarily with duplicating the lower division curricula of the universities, there is obviously little opportunity for originality. Variations in offerings will be determined only by the lower division patterns of the higher institutions chosen as models, and the ability of the local college to carry out these duplications. Such procedure in arranging the curriculum at least simplifies the problem. The meager offerings possible for the small junior college are regularly confined to the most essential courses of this type and not many of the larger junior colleges show a disposition to attempt anything beyond the conventional duplications.

The offering of these customary lower division courses is obviously an essential duty of the junior college. The best junior college students are usually headed for advanced study in higher institutions, and are entitled to adequate preparation for such work. As will be shown later, an adequate selection of courses for them, sufficiently varied and co-ordinated to constitute a genuine curriculum of lower division rank, is in no way

¹ *Sierra Educational News*, August 1916.

inconsistent with a due recognition of the other functions of the junior college. In planning a curriculum even of this limited type, however, there are certain considerations which it is well to keep in mind, if the arrangement is to be intelligent and not merely imitative.

Library and reference facilities.—The first requisite for a course of genuinely collegiate character is the combination of instructional and reference facilities adequate for scholarly and scientific work. It is much better to carry on a few lines of study which can be done well than to dissipate the limited stock of resources by undertaking more than can be creditably done. Only in this way can students be worthily prepared either for upper division study of a satisfactory quality or for an attack upon life problems in the thoughtful manner which should characterize the college-trained citizen. The wish to popularize the junior college or to present an impressive array of courses must not be allowed to jeopardize the standard of work. Collegiate instruction of a high type requires a properly trained staff, so programmed as to allow effective daily preparation, and adequate material equipment. The curriculum must be kept within the range of these resources.

The foregoing restriction may seem to increase the difficulty of meeting the range of requirements as laid down for lower division students by the various higher institutions. This burden is not, however, as great as it may seem. There is a growing disposition in the universities to accept reasonably equivalent substitutes, provided that these represent a strong grade of work and that the point does not involve technical prerequisites such as are essential to certain advanced courses. Herein the situation demands an intelligent and careful analysis of the essential needs in connection with the instructional facilities available. University and college departments are usually ready to give sympathetic advice and assistance on such curricular

problems to the end that the best interests of the students may be served.

3. The curriculum as a means to wider community service.—The second function of the junior college, as previously discussed, is that of making the opportunity for higher education genuinely democratic. The accomplishment of this is partly automatic when the junior college, by its very establishment, makes its offerings accessible to many who were previously debarred by distance and economic restrictions from higher education. Any thorough-going fulfilment of this function, however, requires well-planned curricular offerings, adapted to community needs. Recognition must be given to the interests and potential requirements of those who would not otherwise be served by an institution offering collegiate instruction. With the growing interest in the adult-education movement, there is opening up a field for the junior college, which has far-reaching possibilities. President E. J. James, of the University of Illinois, foresaw this development as early as 1905, and expressed at that time the belief that the junior colleges would relieve the universities of the burden of extension work and do it more effectively without the deterrent costs entailed by distance from the localities in need of such service.

Types of community service courses.—The possibilities of such service may be illustrated by the type of courses which have been offered by some of the California junior colleges which have endeavored to adapt their curricula and extension service to the special needs of their communities and to experiment to a limited degree in the effort to determine the extent of apparent needs.

Vocational courses.—For example, the Fullerton Junior College offered for a while a course in Oil Production because the local industrial interests centered so largely around that field, but withdrew it for lack of permanent demand. Chaffey Junior

College offered an extended variety of agricultural courses adapted to the interests of the Ontario District, and has found an appreciative response which has made possible a very valuable and distinctive piece of educational service.

Cultural courses.—Sacramento and Modesto have apparently found a more general interest in cultural rather than industrial lines, and consequently we find their special offerings inclining more to the academic and conventionally collegiate field. This is illustrated in the courses announced by the Sacramento Junior College as “extra hour” classes, which are scheduled at late afternoon or evening periods so as to be available for those who are prevented by their occupations from attending classes during the regular school day. The list for 1926 is announced as follows:

Applied Art	Public School Art
Art Appreciation	Public Speaking
California History	School Law
Constitution	Spanish
Dramatics	Music—School Methods
French for Beginners	Music Theory
History of Education	Music Appreciation
Political Science	Music—Voice

Extension courses.—Similarly Modesto is disposed to seek to discover the trend of community needs and interests and to offer any reasonable arrangement of courses which seems to be justified. In 1924–1925 we find such subjects as Contemporary History, Home Gardening, Educational Measurements, Spanish, and Home Economics given to extension classes—truly a democratic range, which indicates at least a willing spirit of adaptability. This junior college, moreover, seems to be unique in the matter of carrying its extension service to the actual place of need, since it announces that it will give extension courses at any place in the country at which there is a sufficient number of

applicants to justify the service. The fact that its enrollment in special classes for 1924-1925 was more than double its regular enrollment for that year was no doubt due to this plan of carrying extension service to localities which were otherwise debarred from collegiate opportunity.

These examples will serve to show the growing recognition of this responsibility, and the disposition to adapt the junior college courses to community needs. The particular adjustments in the curriculum best calculated to accomplish this will be an individual problem in every case, which will require a community survey for its solution. The valuable type of service which may be rendered thereby will repay all effort necessary for the study.

4. Terminal curricula.—The responsibility of the junior college in the matter of semi-professional vocations was stressed in our chapter on its functions. This can be accomplished only through well-considered and properly organized curricula. It is in this task that the director of the junior college faces the greatest need for careful study and constructive thought. It is no longer a matter of duplicating the conventional courses given in the lower division of the universities. These are essentially foundational in character with the completion courses reserved for later years. Nor can these advanced courses be given in their usual form to lower-classmen who lack the foundation regularly assumed. With very little well-tested pioneer work yet available to serve for guidance, there is need for careful experimentation in most cases.

The problem is essentially one of job analysis. Such data as are already available in regard to semi-professional vocational needs, should be supplemented by a comparison with the standard curricula for training on the professional level. The most promising beginnings yet made in formulating terminal curricula have shown a selection of certain fundamental lower divi-

sion courses, basic either to professional or semi-professional training, combined in the second year with simplified adaptations of completion courses. The latter resemble the corresponding upper division courses only in so far as semi-professional work resembles that on the professional level. In general, the emphasis in these curricula is on the practical rather than the theoretical. Very helpful suggestions in this connection are to be found in the following examples of terminal curricula or partial curricula in various semi-professional lines as these have been offered by junior colleges in California.

In agriculture.—In this field the work offered at Ontario is distinctly superior. In all, ten courses are given, aggregating 56 semester hours, and including Stock Judging, Dairy Science, Bacteriology, Agricultural Botany, Cryptogamic Botany (including economic phases of fungus diseases), Citriculture, General Horticulture, Economic Entomology, and Co-operative Marketing. These furnish not only an excellent preparation for general agriculture but are especially adapted to the needs of citrus growers, who constitute the predominant class in that district. The courses are enumerated here in detail as representing an unusually commendable example of the fulfilment of this function by a junior college. Modesto does not stress vocational work, but its offerings in agriculture include Agronomy, Animal Husbandry, Farm Management, Poultry, Pomology, Horticulture, and Home Gardening, with a total of 33 semester hours. Fresno has an extended range of courses in this line which may be taken jointly by vocational students and by prospective teachers of agriculture. These total 48 hours and include Soil Technology, Field Crops, Crop Production, General Pomology, Plant Pathology, Improvement of Home Grounds, Vegetable Gardening, Poultry Husbandry, Animal Husbandry, Principles of Dairying, Farm Shop, Gas Engines and Tractors, and Individual Agricultural Projects.

Fullerton, Bakersfield, and other colleges report having offered agricultural courses in the past but found insufficient interest to justify their continuation as college work. In fact, interest in this vocation is apparently not keen in any part of the state, due probably to temporary conditions, and the University of California has felt a sharp decline in that department. With the return of normal interest it is reasonable to expect a wider duplication of the present commendable beginnings in this field of vocational training.

Business management.—Commercial lines have proven by far the most popular as a field in which to offer vocational training. At least two rather distinct types of training are now being offered, one of which is usually designated as Business Management or General Business, while the other is termed Secretarial Service. Seven of the colleges offer a more or less complete curriculum on the semi-professional level for the first of these lines. The most extended offerings of this type are at Pasadena where a thoroughly organized two-year curriculum is arranged. This includes, in addition to Economics, Business English, and Public Speaking, which need not be essentially different from the corresponding courses in other curricula, no less than 12 courses so planned as to provide culminal training of an excellent sort. An outline of the entire curriculum is given here because it seems a worthy pattern of such offerings and because it represents one of the best-organized terminal curricula in this field which has yet been offered by a junior college. The arrangement of courses is shown in the tabulation on the following page. The entire arrangement is so well planned to prepare great numbers of students for the vocational activities in which they are almost certainly destined to engage that it merits careful study.

Four other junior colleges have reasonably adequate curricula of this type. In addition to the required English, the total

GENERAL BUSINESS CURRICULUM

(PASADENA JUNIOR COLLEGE)

First Year

FIRST SEMESTER			SECOND SEMESTER		
Subject		Units	Subject		Units
D-1c	Business English.....	3	D-1d	Business English.....	3
D-50	Orientation or Elective...	3	D-50	Orientation or Elective...	3
D-1a	Accounting	3	D-1b	Accounting	3
D-2a	Business Mathematics....	3	D-2b	Business Mathematics....	3
D-1a	Principles of Economics	} 2	D-1b	Principles of Economics	} 2
	or			or	
D-1a	Economic Geography	} 2	D-1b	Economic Geography	} 2
D-1a	Salesmanship		D-1b	Salesmanship	
Physical Education.....		1½	Physical Education.....		1½
		17½			17½

Second Year

FIRST SEMESTER			SECOND SEMESTER		
Subject		Units	Subject		Units
D-1a	Public Speaking.....	3	D-1b	Finance	2
D-2a	Elements of Finance.....	2	D-2	Business Psychology.....	3
D-2	Business Law.....	3	D-2b	Accounting or }	2
D-2a	Accounting or }	2	D-2	Merchandising }	
D-2	Retail Selling }		D-2	Business Organization and	3
D-2a	Foreign Trade or }	3		Management	
D-2	Retail Advertising }		D-2	Real Estate	3
Elective		2	Elective		2
Physical Education.....		½	Physical Education.....		½
		15½			15½

offerings leading directly to vocational participation in business activities are in each case as follows: Santa Ana, 38 hours; Fresno, 38 hours; Fullerton, 36 hours; Azusa, 35 hours. The typical subjects included are Principles of Economics, Accounting, Economic History and Geography, Mathematics of Investment, Retail Merchandising, Advertising, Salesmanship, and Business Organization.

Hollister and Riverside offer less complete groups of courses,

totaling approximately 24 semester hours each. These are both well arranged, however, and since the work at Riverside is on the co-operative plan, by which a student alternates classroom work and business employment, in periods of six weeks each, there is a strong probability that the total training received in this way is as effective, in many cases, as the additional courses would have been without the business employment.

Draftsmanship.—Three of the junior colleges, Fresno, Riverside, and Santa Ana, offer what is usually regarded as adequate training for an office draftsman. In all three cases provision is made for approximately nine hours per week of the student's time throughout the two years in Mechanical Drawing, Descriptive Geometry, Machine Drawing, and Architectural Drawing, with supplementary work in Freehand Drawing.

Engineering.—In spite of the interest on the part of high school seniors in engineering, and the adequacy of a two-year curriculum by way of preparation as shown by the studies previously reported, only two of the junior colleges are undertaking to offer culminal training in this field. Moreover, only a small number of students have chosen to use these offerings as terminal vocational training at either school. The curriculum at Riverside is a part of the co-operative plan, or "Co-ordinated Education" as they prefer to call it. This curriculum includes Physics, Mechanics, Drawing, Engineering Calculations, Surveying, Electricity, Materials, in addition to the co-ordination or correlating study which accompanies the periods of actual employment. The total credit in these studies which any one student may earn in a normal course approximates 36 semester hours.

The curriculum at Fresno provides, in addition to the Mathematics, Drawing, and General Physics which are essential, optional work appropriate to the phase of engineering selected.

These are drawn from the following offerings: Surveying, Highway and Railyway Curves, Materials of Engineering Construction, Elements of Electrical Engineering, Problems of Mechanics, Elements of Heat Power Engineering, and Machine Shop.

Home making.—Home making as a vocation is not yet standardized to the point where a curriculum can be evaluated on a strictly job-analysis basis. Moreover, there seems to be a tendency in some of the institutions to arrange cooking and sewing classes of questionable college grade in which to put girls who have difficulty in carrying other work. There are three junior colleges, however, which offer a range of courses specifically related to home making, totaling in every case at least 30 semester hours, exclusive of English, science, hygiene, and allied subjects. The colleges at Fullerton, Modesto, and Pasadena have all arranged curricula of this grade. One of the best is given below as an example of a serious attempt to provide a well-balanced and reasonably complete preparation for the responsibilities of home making.

VOCATIONAL CURRICULUM IN HOME ECONOMICS

(FULLERTON JUNIOR COLLEGE)

First Year

FIRST SEMESTER		SECOND SEMESTER	
Subject	Units	Subject	Units
1A—Elementary Food Study...	3	1B—Elementary Food Study...	3
Household Management.....	3	Household Management.....	3
Applied Chemistry or }	2-4	Applied Chemistry or }	2-4
General Zoölogy }		General Zoölogy }	
6A—Art (Design).....	2	6A—Art (Design).....	2
1A—English (Composition)...	3	2—Personal Hygiene.....	2
Physical Education.....	½	Physical Education.....	½
Electives	1-2	Electives	2-3
14½—19½		14½—19½	

Second Year

FIRST SEMESTER		SECOND SEMESTER	
Subject	Units	Subject	Units
1A—Clothing (Construction)...	2	1B—Clothing (Construction)...	2
Textiles (Costume Design).....	1	Textiles (Costume Design).....	1
Crafts	2	Crafts	2
Orientation	2	Orientation	2
Ethics	2	Ethics	2
Physical Education.....	$\frac{1}{2}$	Physical Education.....	$\frac{1}{2}$
Electives	7	Electives	7
16 $\frac{1}{2}$		16 $\frac{1}{2}$	

In addition to such subjects as are listed above, Pasadena offers Landscape Design and Floriculture, Interior Decoration, and History of Furniture, and Ontario provides some practical courses totaling 24 units, but serving chiefly as electives rather than as a complete curriculum.

Nursing.—A question may very properly be raised in connection with this vocation as to how far any of the junior colleges are entitled to be credited with furnishing terminal training. As a matter of fact the arrangement in all cases is a co-operative one in which the practical and much of the theoretical work is actually taken at the co-operating hospital. The junior college, however, supplies the supplementary training in science, especially physiology, chemistry, and bacteriology, as well as in physical education, nutrition, dietetics, and public health. As a result of this co-operative plan, the students are well qualified for proficient service in that vocation, and the plan is such a commendable one that the probability is suggested of its profitable application to other lines, thereby linking still more closely the junior college with the higher educational needs of its community. In Pasadena and Riverside the junior colleges supply approximately one-half of the nurses' training; in Fresno only the work in nutrition, dietetics, and hygiene is given by the college, the hospitals being equipped to provide the remainder of the training.

The non-vocational terminal curriculum.—It may be urged that the lower division courses leading toward the university constitute in themselves an acceptable terminal curriculum for those who do not continue the specialized form of study which the upper division work regularly requires. This is obviously a matter of opinion, and in the absence of definite objectives upon which to base criteria of evaluation, no reliable measurement is possible. This assumes some educational goal in the way of general culture. Moreover, to the extent that the lower division pattern of courses is a desirable foundation of general culture upon which to base later specialization in the university, it is a correspondingly desirable foundation of culture for any after-school pursuits. Something in the way of a non-vocational terminal curriculum must have been contemplated by those who framed the resolutions adopted by the State Board, when provision was made not only for a junior certificate curriculum and for vocational curricula, but also for a “junior college course open to all graduates of high schools regardless of recommendation, this course to stress health, citizenship, and home making.” The writer believes that the student who completes his formal education with two years of non-vocational college work, earnestly pursued, has spent his time to good advantage. Especially is this true if a final vocational choice has not been made at the time of completing high school, or if his choice is one for which no specific preparation is offered in the college. But so far as this study is concerned, the writer can merely repeat that an objective defined only in terms of general culture does not admit of use as a criterion for evaluating the work of junior colleges.

5. *The guidance factors in the curriculum.*—Although the problems of guidance in the junior college call primarily for administrative provisions adaptable to individual needs, it is nevertheless possible to give very valuable assistance in

this regard through the curriculum itself. The familiar plan of grouping together certain courses definitely related to some specific educational goal serves as very material assistance to the Freshman who has only a general idea of his objective and almost no conception of how courses are to be selected for reaching it. A generous number of such suggested curricula, each one properly designated as to its goal, is advisable for beginning students, and the device furnishes helpful guidance at a time when there is not yet opportunity for more personal and analytic study of individual needs.

Orientation courses.—A second, and perhaps even more significant form of guidance which has recently been developed as a phase of the curriculum, is the innovation known as “orientation” courses. A committee of the American Association of University Professors, after an investigation of the various types of orientation courses, reported the following list of purposes given by those who had charge of organizing such courses, as published in their *Proceedings*, Vol. VIII, *Bulletin No. 6*:

1. To adjust the student to college environment.
2. To train him in thinking.
3. To provide a course which by its very difference from high school courses shall convince him of the seriousness of college work.
4. To give him a sound general conception of the nature of the world and man.
5. To survey the historic background of contemporary civilization.
6. To give the student a stimulating and intelligent interest in the main human problems of the present day.
7. To afford an introductory survey of the whole or at least a considerable portion of the field of collegiate study.

The titles given to these courses show varying emphasis on certain of these purposes. Most familiar among these designations are the following: Problems of Citizenship, How to Study in College, Contemporary Civilization, and The Nature

of the World and of Man. The increasing popularity of these offerings and the experimental studies that are being made as to their effectiveness indicate that there exists in this connection a very real field of service peculiarly appropriate to the junior college and its curriculum.

Taking again as a concrete example the junior colleges of California, we find orientation courses first appearing in 1925. By the following year five of these junior colleges had established such courses as requirements for Freshmen, and were utilizing this means of guidance in very definite ways. Two others had also arranged similar offerings but as electives only, although especial efforts were made to direct into this type of course those students most in need of guidance. The limited period in which trial has been made of these curricular devices for guidance has not yet permitted adequate analysis of results for final judgment as to their effectiveness. Such evidence as is available seems to favor strongly this general means of dealing with the problem of educational adjustment in the lower division. The chief question, apparently, is that of determining the most effective type of course for particular needs, so that the junior college may arrange its orientation and similar guidance courses with more assurance as to results.

In conclusion, the reader should be reminded that the general problem of guidance is still a perplexing one for much older and more definitely established institutions than the junior colleges. It is quite conceivable that there will be developed soon more efficient methods of bringing the curriculum to bear upon some solution. In the meantime, it seems the part of wisdom for junior college administrators to make use of the best available means now being developed for meeting even partially this urgent need.

CHAPTER VI

ADMINISTRATIVE PROBLEMS OF THE LARGE RURAL JUNIOR COLLEGE

MERTON E. HILL*

The administrative problems of the large rural junior college will vary according to several factors involved, i.e., nature of the surrounding country, whether located in a small town or a large rural community, nearness of other collegiate institutions, and distance from large population centers. The problems may, however, be all considered under the following heads, which will be employed in this chapter: Financial Administration; The Staff; Student Relations; Community Relations; and Institutional Relations.

Financial administration.—The junior college board is required to adopt a budget at the beginning of each fiscal year. The following is the form of statement followed by California junior colleges in making up their annual budgets:

JUNIOR COLLEGE BUDGET

	Expended for Year 1926-27	Estimated for Year 1927-28
1. General Control		
2. Teachers' Salaries		
3. Other Expenses of Instruction.....		
4. Library		
5. Operation of School Plant.....		
6. Maintenance of School Plant.....		
7. Fixed Charges		
8. Capital Outlays		
9. Auxiliary Agencies and Sundry Activities..		
10. Laboratory Supplies		
11. Total		

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THE JUNIOR COLLEGE

PART I. TEACHERS' SALARIES

	Expended for Year 1926-27	Estimated for Year 1927-28
2. <i>Teachers' Salaries:</i>		
A. Salaries of teachers.....		
B. Salaries of principals and supervisors...		
		
Total, Part I.....		

PART II. OTHER MAINTENANCE EXPENDITURES

	Expended for Year 1926-27	Estimated for Year 1927-28
1. <i>General Control:</i>		
A. Expenses of school elections to be incurred by district.....		
B. Salaries of members of city boards of education		
C. Salaries, supplies and other expenses of office of secretary of City Board of Education (or clerk of Board of Trustees).....		
D. Expenses of trustees at Trustees' Institute		
E. Expenses of superintendents and school principals at official conventions or while on official business.....		
F. Salaries, supplies and other expenses of superintendent's office (district and city superintendent)		
G. Expenses of census enumeration and attendance officers		
3. <i>Other Expenses of Instruction:</i>		
A. Cost of supplies used in instruction.....		
B. Clerical service for instructional officers		
C. Miscellaneous expenses of instruction (including payments and transfers to other schools or districts as authorized by law)		
4. <i>Library:</i>		
A. Cost of books, supplementary and library		
B. Salary of librarian.....		

	Expended for Year 1926-27	Estimated for Year 1926-27
C. Expenses of book repairs and replacements	-----	-----
D. Other expenses of library.....	-----	-----
5. <i>Operation of School Plant:</i>		
A. Wages of janitors, engineers, gardeners, etc.	-----	-----
B. Fuel, water, light and power.....	-----	-----
C. Janitors' supplies	-----	-----
D. Care of grounds.....	-----	-----
E. Miscellaneous expenses of operation....	-----	-----
6. <i>Maintenance of School Plant:</i>		
A. Upkeep of grounds (repair of play- ground apparatus, etc.).....	-----	-----
B. Repair of buildings.....	-----	-----
C. Repair and replacement of heating, lighting and plumbing equipment.....	-----	-----
D. Repair and replacement of apparatus to be used in instruction.....	-----	-----
E. Repair and replacement of furniture....	-----	-----
F. Repair and replacement of other equip- ment	-----	-----
7. <i>Fixed Charges:</i>		
A. Rents and insurance.....	-----	-----
9. <i>Auxiliary Agencies and Other Sundry Activities:</i>		
A. Salaries of school physicians, dentists, nurses, and other health inspectors.....	-----	-----
B. Other expenses of health service.....	-----	-----
C. Expenses for transportation of pupils...	-----	-----
D. Expenses for community lectures and community social centers.....	-----	-----
E. Expenses for recreation.....	-----	-----
F. Other expenses for auxiliary agencies..	-----	-----
10. <i>Laboratory Supplies:</i>	-----	-----
Total, Part II.....	-----	-----

PART III. CAPITAL OUTLAYS AND PERMANENT IMPROVEMENTS

	Expended for Year 1926-27	Estimated for Year 1927-28
8. <i>Capital Outlays:</i>		
A. Money to be expended for purchase of land		
B. Expenses for new buildings.....		
C. Expenses for improvement of grounds..		
D. Expenses for alteration of buildings (not repairs)		
E. Expenses for new furniture.....		
F. Expenses for new instructional apparatus		
G. Expenses for other new equipment.....		
Total, Part III.....		

The Board should adopt an accounting system and require a monthly financial statement of the principal of the junior college. The following form makes it possible for the principal and for the Board to know their financial status at the beginning of each month:

MONTHLY STATEMENT¹

STATEMENT, ... JUNIOR COLLEGE, ..., 19.....					
Segregation *	For Month	To Date	Credits	Budget	Balance
Agriculture, General.....					
Citrus					
Dairy					
Deciduous					
Poultry					
Pigeon					
Clerical					
Janitors					
Miscellaneous					
Music					
Postage					
Printing					
Rental					

¹ As used chiefly by Chaffey Junior College.

Segregation	For Month	To Date	Credits	Budget	Balance
Science					
Teachers					
Telephone					
Textbooks					
Transportation					
Water					
					
Total					
Balance (month before).....					
Above credits					
Tuition					
District					
Above warrants					
Salaries					

Not only should the budget be strictly adhered to during each year but there should be an effort on the part of the administrator to decrease costs and to increase every available income for the junior college. Under the California law state aid is based on average daily attendance. Therefore a proper accounting system requires constant check on the daily attendance so that the annual average daily attendance will be kept as high as possible. As tuition may be charged for the attendance of junior college students from portions of counties where junior college districts are not organized, it is clear that it is important to keep the attendance of such junior college students separate, and to maintain a careful accounting system so that the total costs of average daily attendance are known. Bills against counties should be submitted early in July of each year.

Site and buildings.—The items in the following proposed score card will give an idea of the items that should be taken into consideration in the selection of a site and the erection of buildings for a junior college with an enrollment of around five hundred students:

SCORE CARD FOR A JUNIOR COLLEGE OF FIVE HUNDRED ENROLLMENT

		Partial Score	Partial Score
I. SITE			
A. Location			
1. Accessibility	25		
2. Environment	25		
B. Size (25 acres, standard)	50		
C. Configuration			
1. Physiography	5		
2. Shape	10		
D. Grounds			
1. Landscaping	15		
2. Athletic grounds—			
a) Football	30		
b) Baseball	20		
c) Track	30		
d) Tennis courts	35		
TOTAL SCORE, SITE	300		
II. BUILDINGS			
A. Placement			
1. Orientation	10		
2. Location on site	15		
B. Structure			
1. Type	25		
2. Roof	10		
3. Stairways	30		
4. Corridors	20		
5. Entrances	10		
6. Color scheme	10		
7. Approach	15		
8. Arcades	30		
TOTAL SCORE, BUILDINGS	150		
C. Service system			
1. Heating—			
a) Kind	10		
b) Temperature control	10		
c) Ease of operation	10		
d) Success of operation	10		
2. Ventilation—			
a) Source of air supply	10		
b) Humidity	10		
c) Circulation	10		
d) Success of operation	10		
3. Fire protection—			
a) Fire-proofness	10		
b) Fire-fighting equipment	10		
c) Facility of exit	10		
d) Wiring	10		
e) Gas control	10		
4. Artificial lighting—			
a) Type	10		
b) Control	10		
c) Classroom illumination	10		
d) Corridor light	5		
e) Entrance light	5		
f) Exterior light	10		
5. Toilets—			
a) Adequacy	10		
b) Location	10		
c) Type	10		
d) Sanitation	20		
TOTAL SCORE			50

		Partial Score	Partial Score
6. Water supply—			
a) Source	10		
b) Drinking	5		
c) Washing	10		
D. Classrooms			
1. Adequacy*	30		
2. Location	15		
3. Lighting—			
a) Natural	15		
b) Artificial	15		
4. Equipment	25		
5. Finish	20		
6. Bell-clock control	15		
7. Adaptation to needs of various depart- ments	25		
E. Laboratories			
1. Adequacy†	20		
2. Location	20		
3. Lighting	20		
4. Equipment	20		
5. Adaptation to needs of departments	20		
F. Shops			
1. Adequacy	10		
2. Equipment	10		
3. Location	10		
4. Adaptability	10		
G. Additional rooms			
1. Library—			
a) Adequacy	10		
b) Lighting	10		
c) Equipment	10		
d) Books, adaptation, etc.	10		
2. Auditorium—			
a) Adequacy	10		
b) Seating	10		
c) Location	10		
d) Adaptability	10		
3. Music rooms	40		
4. Museum	20		
5. Opportunity room	10		
6. Rest rooms—			
a) Teachers	10		
b) Students	10		
7. Administration suite—			
a) Location	5		
b) Adequacy	10		
c) Adaptability	15		
TOTAL SCORE, BUILDINGS.....		900	
TOTAL SCORE, SITE AND BUILDINGS.....		1,200	

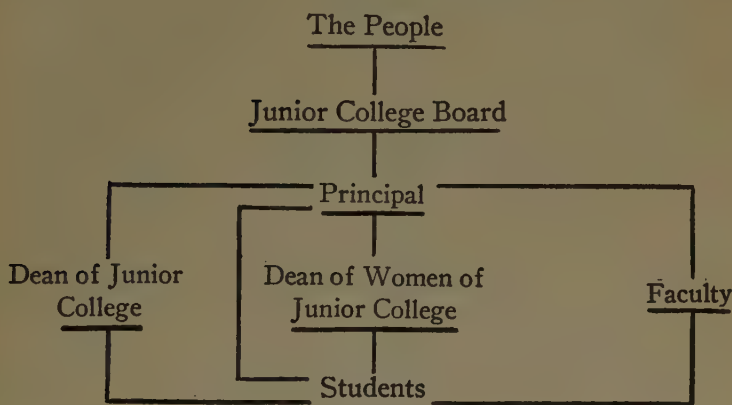
*Standard size: there are fifteen of various sizes, e.g., ten, 22×28 ; three, 24×32 ; two, 32×40 .

†Standard, purpose: 2 chemistry; 1 physics; 1 botany; 1 biology; 1 general; 2 lecture rooms.

The staff: selection and organization.—The selection of junior college instructors is very important. With the exception of vocational or special departments, instructors should be required to possess at least a Master's degree in the subject which they teach. In foreign languages there should be an additional requirement—travel in the country the language of which is being taught. It is of considerable advantage to have instructors who are familiar with high school problems on the one hand and with college and university problems on the other. Where possible teachers who have had experience in both high school and university are desirable. But in selecting teachers it is well to have some who have had definite college experience. The remaining can be selected from the positions in the high school. In selecting special or vocational teachers it is well to have only those who are masters of their subjects. Master's degrees here are immaterial. Teachers of music should be the best the country affords. Teachers in mechanical arts should be expert mechanics; teachers of agriculture should be capable of carrying on farm projects successfully but they should also specialize in one branch of agriculture, such as: Agronomy, Animal Husbandry, Pomology, etc. Teaching ability rather than research ability should be the primary qualification for the junior college teacher. There should be a Dean of the junior college and a Dean of Women. The Dean of the junior college should be a general adviser of students, suggesting to them and to Seniors of the high schools in the junior college district their proper courses for junior college and for university. He should be a vocational adviser directing them along the line of occupational careers. In administration he should plan assemblies and supervise student body activities. He should suggest courses of study and should promote new courses. The Dean of Women of the junior college will have special relationship with the girls, supervising their club activities, meeting them in conference,

and adjusting their difficulties. The following scheme shows graphically the relationships:

CHART SHOWING ADMINISTRATIVE ORGANIZATION
OF A JUNIOR COLLEGE



There should be meetings of the junior college faculty at least once a month. These meetings should include a study of local problems and of the general problems involving college students.

Student relations.—The students who enter the junior college are of three types. From experience it would seem that about 50 per cent are regularly recommended high school graduates. These students would qualify to enter the colleges and universities of the country. Then there are high school graduates who have too few “recommends” for entrance to the higher institutions of learning. And finally there are mature young men and women who are not high school graduates, but who wish to re-enter school. Many of them wish to go on through the university. The existence of these different types of students

presents several problems that must be met. It is clear that recommended and non-recommended students should not be in the same academic classes. To meet this situation several plans have been tried. The non-recommended graduates and the mature adults who have not graduated from high school are permitted to enter vocational courses where academic college training is not considered. For these students the junior college is a finishing-school. Again, certain academic courses for non-recommended students parallel the academic courses that are strictly collegiate in their nature.

Courses of study for different student groups.—A good arrangement for administering the junior college course of study for both recommended and non-recommended students is as follows: The recommended students are put into one course for a given period of three hours per week, as for example: Monday, Wednesday, Friday. The non-recommended students are put into a parallel course during the same period on Tuesday, Thursday, and Friday. Both sections meet together on Friday for lecture work, while on the remaining days of the week they meet separately. In this way the non-recommended students are given the opportunity to take academic courses, but no assurance of college credit. If, during the course of the term, they show their ability to do college work they may be put into the college section the second semester. Those in the college section who are not doing recommended work may be transferred to the non-recommended section. In this way a higher type of scholarship is secured and non-recommended high school students may be salvaged. Those students who cannot keep up with the work are relegated to vocational work or dropped out. Thus the higher institutions are saved from wasting their time with incompetent students.

Preparatory or review courses.—Another way to meet this situation is to have preparatory or review courses in the junior

college section. These are intensive review courses and cover high school work. Some of the courses of that type which have been successfully employed at Chaffey Junior College are outlined in the following excerpt from the official bulletin:

SPECIAL COLLEGE PREPARATORY COURSES

ENGLISH S—COURSE IN SUBJECT A

This course is for those students who have failed to pass the Subject A examination. A thorough review of the fundamental principles of English grammar and composition is included in the work. Individual difficulties receive special attention. Daily themes are required.

Three hours of recitation each week.

Text: *Century Collegiate Handbook*.

Note: Students who, in the estimation of the instructor, demonstrate ability to carry the regular Freshman work may be transferred to the regular credit courses.

MATHEMATICS S—SPECIAL MATHEMATICS

A course open to those who present no mathematics for entrance credit or who do not have recommended grades in that subject. The first semester's work consists of the fundamentals of algebra; the second semester, plane geometry. The project method, with each student advancing as rapidly as he is able, is the one followed.

Three hours of recitation each week.

Texts: First semester, *Advanced Algebra*, by Hawkes. Second semester, *Plane Geometry*, by Wentworth-Smith.

HISTORY S—MODERN HISTORY

A survey of the past four hundred years of history as it centers about the politics of Europe. The first semester covers the period to 1815. The nature of history as a social science, historical methods, the development of the modern state system, the dynastic and colonial rivalries of the great powers of Europe, and the great revolutions in commerce, finance, religion, and politics make up the first semester's study.

The second semester is devoted particularly to the great movements of the nineteenth and twentieth centuries: nationalism, democracy,

economic imperialism, and militarism. The recent domestic and foreign problems of the larger powers are studied. The problem of international relations concludes the course.

As this course is intended for those failing to make a recommended grade in high school history, the methods of the first semester are particularly adapted to the needs of such students. Less emphasis is put on the amount of reference reading and more on training in college methods. Class lectures and discussions are supplemented by individual conferences.

The work of the second semester is very similar to Modern History 4a-4b.

Text: First semester, Hayes' *A Political and Social History of Modern Europe*, Vol. I. Second semester, Schapiro, *Modern and Contemporary European History*.

Three hours of class discussion and lecture throughout the year.

SCIENCE S—ELEMENTARY CHEMISTRY AND PHYSICS

The first semester is devoted to a study of the elementary principles of chemistry, usually considered in the high school course in chemistry. An average of two days a week is spent in the laboratory. The second semester is devoted to a study of the elementary principles of physics.

Texts: *High School Chemistry*, by C. E. Dull; *Practical Physics*, by Black and Davis.

Credit for "S" courses: Students who have not had one or more of the special courses described above in high school and who desire to take them for credit should make arrangements to that end by consultation with the office.

Students who present twelve recommended credits may take two of the courses suggested above, and other courses of university grade in the departments in which they present recommended credits.

Students who are successful in receiving recommended credits in these courses are recommended for college entrance. These courses are all-year courses and each covers the equivalent of two units of junior-senior high school work. Experience with these courses shows that it is possible for some non-recommended high school graduates to fulfil the requirements for graduation from the junior college in three years.

An excerpt from the *Pasadena Junior College Manual* will also be of interest in this connection:

TRANSFER TO THE JUNIOR CERTIFICATE CURRICULUM

Only fully recommended students may enroll in the Junior Certificate Curriculum. Non-recommended students may enroll in the diploma or vocational curricula, and apply the credits earned toward the making up of entrance deficiency—three hours of work in college making up five hours lacking in entrance requirements. The following regulations govern transfers to the Junior Certificate Curriculum:

1. The grade of A or B will be accepted without question as a satisfactory basis of transfer.
2. The grade of D will not be accepted.
3. The grade of C may be accepted on recommendation of the Instructor, and approval of the Administration Staff.
4. In any case the student must have at least twelve recommending credits at the beginning of the semester, and must have attained as many grade points as there are hour points in his schedule. It is also important for the student to do a major portion of his work in academic subjects if he wishes to transfer to the Junior Certificate Curriculum.

Certificate courses for recommended students.—For that type of student who plans to go on to the upper division work in the colleges, courses should be provided which meet the lower division requirements of the institutions to which the majority of those completing the “certificate course” will be transferred. Each student should have the opportunity to take from twelve to twenty-four hours of academic work in English, foreign language, mathematics, social science, and science. Students should plan well-rounded courses so that they may enter the Junior year of the higher institutions of their choice. The students of this group should plan their junior college courses with the higher institution’s requirements in view. Experience shows that where students plan their courses in this way no trouble is encountered when they make the transfer after receiving their junior college certificate.

Diploma courses for non-recommended students.—In addition to the courses which must be taken by those desiring the junior college certificate, there should be “diploma courses” for those who do not plan to go forward to higher institutions. These courses should depend very largely upon the needs of the community in which the junior college is located. In chapter iii on the Junior College Curriculum, courses of this type are described under the caption of “Terminal Courses,” and the practice in a number of junior colleges is therein given. It will be of interest here, however, to describe somewhat more in detail the type of “community service” courses given at the Chaffey Junior College, as shown by the following excerpt from the announcement of courses of that school:

COURSES IN AGRICULTURE

Citriculture 1A, 1B—Fundamentals of Citriculture.—This course deals with the problems of citrus fruit culture in California, including irrigation, cultivation, pruning, fertilization, insect and disease control, marketing, eight-to-one test, handling the product, the outlook for the industry. The Chaffey grove offers opportunity to study these problems at first hand. The fact that Chaffey is situated in the midst of one of the leading citrus sections of the state gives the study an added significance. Text: *Citrus Fruits*, by Coit. Two hours recitation and lecture each week. Credit: Two units each semester.

Entomology 124A, 124B—Economic Entomology.—The course is designed to familiarize the student with common injurious and beneficial insects. The economic importance of various species which attack the farmer's crops is emphasized, and classes are required to make collections and identify a number of important species. Life history studies and control methods are also prominently featured in the course. Much work is given in the field where the student can collect insects and make observations in regard to their life, habits, and control. The course supplements the pomology course and leads to positions as county horticultural commissioners and inspectors, state horticultural, quarantine, and standardization inspectors, ranch superintendents, spray salesmen, etc. Text: *Insect Pests of Farm, Garden, and Orchard*, by San-

derson. Three hours of recitation and lecture each week. Credit: Three units each semester.

Marketing 1A—Principles of Marketing.—The course in marketing given during the first semester covers the fundamental principles of the subject and attempts to give the student a view of the development and problems of marketing. The different types of marketing organizations are discussed and the function performed by each of these organizations is indicated. Methods for the determination of prices are studied and speculation in its bearing on the entire problem of marketing and production receives considerable attention. The relation of the government through its various laws and departments to markets and marketing receives attention. Text: *Marketing of Farm Products*, by Weld. Two hours of recitation and lectures each week. Credit: Two units the first semester.

Marketing 1B—Co-operative Marketing.—The course in the second semester deals with co-operative marketing of farm products. Laws relating to co-operative enterprises, and the history of co-operation in this and other countries are studied. The handling of by-products on a co-operative basis receives considerable attention. Several field trips are taken during the year, notably to the by-products factory at Corona and to the Terminal Market in Los Angeles. The trip to Los Angeles includes attendance at a meeting of the directors of the California Fruit Growers' Exchange. The course prepares the student for participation in co-operative enterprises, as well as for further study of the entire problem. Text: *Co-operative Marketing of Farm Products*, by Jesness. Two hours of recitation and lecture each week. Credit: Two units the second semester.

Pomology 1A, 1B—General Horticulture.—The course is designed to give the students a practical knowledge of deciduous fruit culture and the fundamental principles underlying the science of Pomology. Some of the subjects treated are varieties (including their origin); planning and planting the orchard; cultivation; fertilization; irrigation; pruning; thinning; spraying; budding; grafting; cross pollination; marketing; horticultural laws and quarantine regulations; orchard and tree judging; common insects and diseases. A special thesis on some important horticultural topic is required of each student. Students taking this course are equipped for work as county horticultural commissioners and inspectors, state horticultural, quarantine, and standardi-

zation inspectors, ranch superintendents, spray salesmen, etc. Text: *Textbook of Pomology*, by Gourley. Three hours of recitation and lecture each week. Credit: Three units each semester.

The provision made by the junior college at Pasadena for students who desire simply to graduate from the junior college and then enter some line of community vocation, is indicated by the following excerpt from the *Pasadena Junior College Manual*:

Diploma curriculum.—The subjects included in the following group are designed to form a two-year course that, while fitting the student for a position in the business world, will also give him a very considerable general education. The economic foundation of business will be stressed and constant touch with business houses will be maintained. Suggested programs for both the general business course and the secretarial course will be found on the pages following the descriptive material.

The courses described in connection with the diploma curriculum are: Accounting I and II, 3 units each; Typewriting I and II, 3 units each; Salesmanship I and II, 2 units each; Business Law I and II, 2 units each; Business English I and II, 3 units each; Elements of Public Speaking I, 3 units; Retail Advertising I, 3 units; Advertising Copy Writing II, 3 units; Retail Selling I, 3 units; Merchandising II, 2 units; Shorthand I and II, 5 units each; Office Practice I and II, 2 units; Business Organization and Management II, 3 units; Economic Geography I and II, 2 units each; Principles of Economics I and II, 2 units each; Elements of Finance I and II, 2 units each; Foreign Trade I, 3 units; Business Psychology II, 3 units; Accounting III, 2 units, two semesters; and Real Estate I and II, 3 units each.

The courses indicated above are grouped into commercial curricula, under the titles of "General Business Curriculum," with detailed suggestions for a two-year diploma course, and

also the "Secretarial Curriculum," planned for two years, and aiming to give a well-rounded training along these lines for young people who are able to spend two years in training beyond high school but are not able to continue their education in upper division college work.

Student discipline.—There are a few disciplinary problems that arise in the junior college which will not be found anywhere else. Where the junior college is associated with a high school there is danger that the greater freedom allowed to junior college students will cause an undesirable reaction upon discipline in the high school. If junior college students are given the type of freedom accorded to university students there is danger that disciplinary laxity and disorganization will result. However, it has been found by experience that junior college students may be accorded certain liberties not allowed to high school pupils. Among these may be mentioned: freedom from study hall attendance; freedom from requirement to present permits or excuses for absences; and permission to go and come as they wish.

Junior college students are put upon their honor and given these special privileges so long as they do not take advantage of their freedom to upset general discipline. This sets the junior college student somewhat apart from the high school students, with the result that the high school students look forward to the time when they may have the freedom of the junior college student. This, in general, seems to be a wholesome influence.

Experience has shown that the non-recommended high school graduates often furnish the greatest disciplinary problem in the junior college. The conduct of these students, however, may be kept satisfactory through a wise administration of the special "review" and "diploma" courses, above described. When it is discovered that they have no real purpose in attending junior college and do not properly appreciate its privileges, elimination

is the wisest policy in the interest of all concerned. The best aid to discipline in the junior college is obtained through establishing a basis of mutual confidence and understanding between the administration and faculty and the student body as a whole. Attention to the needs of individuals accomplished through frequent personal interviews, general suggestions to the entire student body, and the building up of an active spirit of loyalty to the junior college and its purposes, will result in an efficacious handling of the problems of discipline.

Student athletics.—Athletic relationships are usually considered an aid in developing student discipline and morale. However, the students of a junior college must be brought to realize that the community cannot afford to spend much tax-money in an outlay for athletic sports. The junior college can and should undertake to carry out a 100 per cent program of physical education, but it cannot afford to bend every energy to the developing of winning teams. Athletics in the junior college must be made supplementary to the physical education program and not a substitute for it. If athletics can be made to serve and not permitted to control the junior college, there is room in the large rural institution for most of the ordinary athletic games and sports which find support in the standard colleges. Very satisfactory interscholastic relations are at present being maintained between the larger junior colleges in football, track, tennis, and basketball. Such teams are maintained by a sufficient number of institutions to provide wholesome competition and to promote institutional spirit among the junior college students. It is possible, however, to maintain a better balance between athletics and other enterprises of a cultural and educational nature than seems to be the case in some colleges and universities. If this balance can be maintained it will be another reason for turning over to the junior colleges the entire task of completing secondary education.

Community relations of the junior college.—The junior college, if located in an agricultural community, has a wonderful opportunity to serve the farming population in a practical way. The Chaffey Junior College at Ontario was started in 1916. It derives its support from an agricultural population and, in turn, ministers to the community through work of an extension, experimental, demonstrational, and advisory character.

Experimental and demonstration work.—During the eleven years that the institution has been operating, a block of orange trees has been treated each year with fertilizers of different kinds. The experiment, as originally outlined, was for the purpose of determining the best fertilizers to use, and to test the relative value of barnyard, complete, and nitrate fertilizers, with and without cover crop. Through the purchase of additional groves it has been possible in recent years to enlarge the experiment, and an effort is now being made to determine the maximum amount of nitrogen that can profitably be applied to orange trees.

Cumulative data are now available for the benefit of citrus growers. The frequent visits of citrus growers to confer with Dean Booth regarding the experiment, are an indication of its value. Each year this experiment increases in importance, and it is expected that it will be continued for a great many years.

Since the deciduous fruit industry is important in the region about Ontario, a sixty-acre orchard is owned by the institution. There are forty-five acres of the deciduous tract in commercial peach orchard. It is the purpose of this part of the orchard to finance the purely experimental operations and to give students practice in pruning, thinning, budding, grafting, and other things that are made possible by the ownership of this tract.

In connection with the experimental work there are at the present time experiments in pruning, fertilization, and cover cropping. The pruning experiment has been going on for five

years and is furnishing some valuable data on the comparative effect of heavy and light pruning, and of short and long pruning. The fertilizer work consists of a test of complete and nitrate fertilizers on the growth and production of cling peaches. A system of permanent cover cropping with alfalfa is being tried with the idea of improving soil in connection with its ability to take water.

Testing of new varieties of deciduous fruits constitutes one of the major projects in the orchard. In this connection bud selection work has been instituted and some very valuable data have been secured. The importance of mutations in the originating of new varieties has been emphasized, and in the last seven years' work twelve mutations of apricots and peaches have been located and most of them propagated, so that progeny trees are now growing in the experimental planting.

Frequent demonstrations are given in pruning, thinning, and spraying. An annual demonstration is conducted in the Chaffey experimental orchard, while throughout the Chaffey Union District demonstrations are held from time to time as the need seems to arise. In this work there has been the closest of co-operation with the farm adviser and the extension service of the University of California.

The farms owned by the school are used constantly as laboratories. They offer material for the classes in Entomology, in Botany, in Pomology and Citriculture. Classes are in the field every week, some weeks every day. The citrus grove offers opportunity for study of fertilizers, of citrus diseases, of irrigation and of insect control. The dairy farm gives classes material for judging livestock. The trapnest station is a demonstration of community co-operation in improvement of poultry stock.

Special classes for farmers.—In all of the agricultural work there is constant correlation with the farms and farmers of the community. Classes for adults are a part of each year's work.

Night classes are held during the winter for farmers, where courses are given in entomology and general horticulture. In these courses the practical phases of the work are emphasized in order to interest those growers who might not be interested in the purely scientific aspects of the subjects treated. During the year 1926-1927, the Chaffey Junior College had 776 adults in various types of extension courses, a practical demonstration of its success in catering to community interests and needs.

The community service rendered by other junior colleges in California is set forth in other chapters of this book. Sacramento Junior College has several hundred adults taking extension courses, likewise Fresno, Bakersfield, Fullerton, and Modesto. The Riverside Junior College has carried on an interesting experiment in co-operative part-time, or co-ordinated education, which is described in detail in chapter ix. Enough has been said to establish the fact that the junior college may become a most helpful community institution. The community which has a junior college may enjoy many of the privileges that come to people who live in the neighborhood of standard colleges and universities. Not only do their young people who have graduated from high school have opportunities to continue advanced studies, under home environment and at small expense, for two years, but many of the adult citizens of the community find opportunity for continuing or supplementing their education along both cultural and practical lines. The junior college, when thus conducted, becomes a genuine "people's college."

Institutional relations.—The relation of the junior college to higher institutions of learning has concerned both the university and the junior college from the very beginnings of the junior college movement. The University of California in 1921 drew up affiliation agreements with the Santa Ana, Fullerton, and Chaffey junior colleges and also with several junior col-

leges maintained in connection with state teachers colleges. These agreements provided for friendly supervision by the state university and for the approval of faculties of the junior colleges by the president of the state university. Under this plan university visitors were sent out for a number of years; these visitors inspected the junior colleges, gave such help as they might, and made confidential reports to the president of the university. Within twelve months the Chaffey Junior College had twenty-eight of these visitors, and other junior colleges reported about as many. This became a burden to the university, and in 1927 the affiliation agreements were withdrawn.

The present basis of understanding between the university and junior colleges is very satisfactory. Junior college students are given the same status as students from other universities and colleges. Students who have fifteen recommended credits when they enroll at the junior college may transfer to the University of California at the end of one, two, three, or four semesters and receive credit for credit, provided the work has been of satisfactory standard in the junior college. This same relationship exists with Stanford University and with virtually all of the other higher institutions of learning. Students who did not have fifteen "recommends" when they graduated from high school must maintain average grades of "C" in the junior college for at least two years before they can transfer to the university. Some of the junior colleges require non-recommended students to make an average of "B" in all work done in the junior college in order to earn transfer recommendation.

Of interest, as indicating quality of work done in the junior colleges is the fact that a number of junior college transfers have received their degrees from the higher institution in one and one-half years after graduation from the junior college. One student has graduated within one year, presenting to the

higher institution no grades other than junior college grades. A very peculiar relationship has existed between the junior colleges and certain state teachers colleges. The teachers colleges at first adopted a policy of requiring junior college graduates to complete forty-two hours of work before graduation from the teachers college; at the same time they required only thirty-two hours of those students who enrolled from colleges without a junior college diploma. This injustice to junior college students has been corrected during 1927, so that junior college graduates are received at the teachers colleges on the same basis as two-year college students from other higher institutions. There is a feeling among certain junior college students that they have not had as good opportunities in some higher institutions as students who spent the first two years in such institutions. To illustrate this point, one college, having a chapter of Phi Beta Kappa, has adopted the policy of giving preference to students who have taken their first two years in that institution. In spite of this announced policy, a considerable number of junior college transfers have achieved the honor of election to Phi Beta Kappa. In time most of these minor adjustments will be made.

Thus it will be seen that the organization and administration of the large rural junior college differs from that of the large city junior college only in the nature of its courses and the types of community service rendered. Its financial problems, its staff or personnel problems, and its management of student, community, and other institutional relations are quite similar to those of other junior colleges of equal size and having comparable financial resources. Given adequate financial support, proper leadership, and a progressive community, and the large rural junior college takes its place as a center of culture and educational service.

CHAPTER VII

THE ADMINISTRATION OF THE SMALL PUBLIC JUNIOR COLLEGE

ALBERT C. OLNEY*

Dr. Leonard V. Koos, in his book, *The Junior College Movement*,¹ states that of the one hundred and eighty-two junior colleges reporting, all but five had an enrollment of less than five hundred students. While these were the statistics of 1921-1922, and there are now four junior colleges in California having over five hundred students, the fact remains that the other twenty-seven public junior colleges in that state have fewer than five hundred students, and nineteen of them have fewer than one hundred and fifty students. This would seem to indicate that the typical junior college is a small institution. For this reason, therefore, a discussion of the administration of the small public junior college should be of considerable interest.

Reasons for organizing small junior colleges.—The enrollment of our public high schools has increased, during the past generation, sixteen times. Enrollment in public and private colleges has also increased at an amazing rate, yet it has not kept pace with the increase in the number of high school pupils. Colleges and universities are crowded and many of them have set definite limits to their enrollment. Classes have grown to unwieldy size. Particularly in the Freshman and Sophomore years of the large universities is this the case. It is not uncommon in such institutions to find classes of two and three hundred students, and even classes of one thousand and twelve hundred are not unknown.

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¹ L. V. Koos, *The Junior College Movement* (Boston: Ginn & Co., 1925), pp. 5-15.

Speaking of the tendency of the larger colleges to limit enrollment in addition to raising standards for admission, Superintendent Frank D. Boyton of Ithaca, New York, said, in an address before the National Education Association Department of Superintendence, in Dallas, March 1927, that fifty-one of sixty-seven colleges reporting admit that they denied admission to 15,196 candidates in September 1926. They admit that over one-half of this number had met the full fifteen "Carnegie" unit requirement for admission, and that a considerably larger number would have been able to do satisfactory college work. In his address, Superintendent Boynton quoted President Hibben of Princeton University, as follows:

We ought to know, as far as it is humanly possible to determine, not only the type of undergraduate, but the type of man he is likely to be. If we find a boy deficient in credits, but who has in his favor a career of leadership, a record of broad influence on his companions, an outlook on life that distinguishes him morally, that kind of a boy, despite academic shortage, is the kind of boy who should be welcome at college.

It is to open the door of opportunity to these thousands of boys and girls who have been denied admission to established colleges, and many of whom "despite academic shortage," have character, seriousness of purpose, and the promise of a "career of leadership," that the small junior college is being promoted. In a certain county in California, during the spring of 1927, a canvass was made of the percentage of the June graduates of the high schools of that county who would be unable to gain admission to colleges. Although there were in that county two universities and a four-year teachers college with a junior college division, it was found that about 40 per cent of the high school graduates who wanted to go to college would be unable to gain admission to existing institutions, either within or outside of the county.

The aims of the small junior college.—The aims of the

small junior college will be those, ordinarily, of any junior college, but with modifications made necessary by environment, resources, and specific limitations of various kinds. The aims which the average small junior college will find itself able to accomplish may be stated as follows:

1. To prepare certain students for work in the university and in other higher institutions of learning.
2. To serve as a finishing-school for another group of students.
3. To furnish extension work of a cultural and practical nature to meet the needs of adults living in the local community.

Meeting the curricular needs of these three groups.—In order to meet the needs of *the first*, which may be called the “certificate group,” it is necessary to offer courses that parallel the lower division courses of the colleges and universities to which this group of students will be most apt to want to transfer for their upper division work.

The second group, which may be called the “diploma group,” should be provided with courses which will fit them to enter some community vocation on the semi-professional level. In a state where regional junior colleges are being established, each such institution might well specialize in the one or two types of courses which most nearly meet community needs. Thus at Fresno Junior College there is a course in irrigation engineering; at Fullerton, one in oil-refining; at Ontario, one in citriculture; and at Marin, a course in foreign trade.

The problem of handling the “certificate” and the “diploma” groups of students in the matter of later transfers to upper division work in the colleges is a difficult one. Whether these students should be entirely segregated or taught in the same classes; how marks should be given; what standards should be required of “diploma” students as a condition of change of status to the “certificate” group are questions which must be

faced. Some junior colleges have found as high as 50 per cent of the "diploma" group capable of doing a quality of work which justified their shift to the "certificate" group. While other junior colleges have found only about 20 per cent capable of doing a "certificate" grade of work. Whatever the plan adopted for handling the two groups it is certain that one of the important functions of the junior college will be neglected unless the capable students in the "diploma," or as they are officially designated, "provisional" group are given an opportunity to show their capacity to do upper division college work.

For the students of *the third*, or adult, extension group of students, a great variety of courses are available. Among such courses which the small junior college may offer may be mentioned: English Literature, Dramatics, Modern Foreign Languages, Art Appreciation, and Music. Also there may be classes for adults in Salesmanship, Accounting and Banking, and other commercial subjects. For farmers there may be offered special agricultural courses adapted to local needs and arranged for the convenience of the persons most apt to be interested. Many of the smaller as well as the larger junior colleges are offering extension courses for teachers in service which are accredited by the Extension Division of the University of California and count toward state education requirements for various types of certificate.

The small junior college which does not contribute to the cultural and recreational needs of the community in which it is located is not living up to its full opportunity for service. Presentation of well-prepared dramatic performances, evenings of good music, lectures on topics of scientific as well as popular interest, and the holding of occasional social functions, are typical of the ways in which the small junior college may bring worth-while enrichment into the community life, and thereby deserve loyal support from its patrons.

Problems of organization and administration.—There are many problems to be met at the time of the organization of the junior college.

Selection of principal.—After the establishment of the junior college district and the selection of the junior college board, the legal aspects of which have been described in chapter iii, the first problem to be settled is the selection of the principal, president, or dean, or whatever the title applied to the chief administrative head. If it is a “department” of a high school, the principal of the high school is also head of the junior college. If it is a junior college district, but both high school and junior college are housed in the same buildings, the high school principal is chief administrative officer, but a junior college dean is selected to have immediate charge of matters relating to the junior college. If the junior college is entirely separate from the high school in buildings and faculty, the head of the junior college is often called “the president.”

It is desirable to have as dean of the junior college, or as president, in case of a separate institution, a person who not only has the necessary educational qualifications as to training and experience, but also a person who has made a special study of the junior college problem. He should also be in entire sympathy with the full program of aims of the junior college in order that he may not turn it to some special narrow line of development and thus hinder the accomplishment of its full measure of educational service. When the administrative officer has been chosen he should work out with the junior college board the general lines of policy to be followed, and should be given authority by the board to put these policies into operation as rapidly as the resources of the institution will permit.

Authority and duties of the principal, president or dean.—At the time of his election the limit of authority and general duties of the principal should be set up by the junior college board.

Among these will be usually mentioned the nomination of teachers and instructors, as well as other employes; the determination, in co-operation with the faculty, of proper standards of work; the administration of student control and discipline; and the carrying out of the general policies of the junior college board.

Selection of site for buildings.—The selection of a suitable site for the future buildings of the junior college is of prime importance. It should, if possible, have from forty to sixty acres of land—high, well drained, and fertile. In topography it should lend itself to artistic development by a landscape architect, but first consideration should be given to the proper lay-out of the buildings from the standpoint of their most effective use, educationally. Provision should be made for suitable track, field, and other sports, such as football, baseball, hockey, archery, and tennis. Botanical gardens should be provided for experimental purposes. Sufficient allowance should also be made for automobile parking.

Selection of instructors.—Probably the most important duty of the principal is that of the selection and nomination of instructors. In the candidates recommended by him to his board he should seek to avoid the faults common to college and university instructors. One of the most outstanding of these faults is that of lack of any training in the technique of teaching, fostered by the point of view of the traditional college professor that all one needs to know is subject-matter in order to be able to teach. The junior college executive should look for men and women who have had professional educational training, successful experience in teaching adolescents, and who in addition possess culture and refinement. Junior college teachers should have the social, or humanistic viewpoint, and should be interested in teaching rather than research. The minimum educational preparation should be that represented by the Master's

degree, or its equivalent. Even the smallest college will need to provide instructors in the fields of English literature, mathematics, modern foreign languages, social science, health education, including physical training, physical, chemical, and biological sciences, and philosophy. In addition to these there will be, according to the resources of the institution, courses to meet the needs of both the "diploma" and "community" adult groups of students.

Certain administrative details.—A sufficient clerical force should be maintained in the *principal's office* to permit the keeping of necessary records of attendance, keeping scholarship records up to date, and carrying on the correspondence of the office. It is poor economy to pay a principal's salary to the office boy. The office should have at least one typewriter, a rotary mimeograph, or other multigraphing machine, and adequate filing cabinets. The principal should have a public office with accommodations for his secretary and a private office for consultations with students, parents, and patrons.

A junior college manual or catalogue, which outlines the courses of study in detail, and groups the courses suggested for the various student types in appropriate curricula, should be printed. This booklet should be placed in the hands of students, teachers, and patrons, and mailed on request to other educational institutions.

Registration of students should be begun at least a week before the formal opening. This gives ample opportunity for entering students to become familiar with the courses offered and to receive guidance in the selection of their individual programs. Blank program forms should be printed or mimeographed and filled out in duplicate, one to be retained by the student and one to be filed with the registrar. After students' programs have been inspected, approved, and filed, no program

change should be permitted without the approval of the principal or dean.

Medical and psychological examination.—Sometime during the first week after the opening of the junior college, each student should be given a complete medical examination and a group intelligence test. The results of these examinations should be entered, in code if it seems desirable, on each students' card in the principal's office. The program of student advisement and the development of the physical education courses of the institution should take into account the results of these examinations.

Attendance.—Student absences should be accounted for by men and women students to their respective deans. This should be done immediately after the return of the absentee to classes, and suitable records should be kept in the principal's office. Not only is this a matter of importance from the standpoint of student morale and scholarship, but it is required by the state law, as county and state financial aid is based upon the record of average daily attendance.

Marking system.—The system of marking should be similar to that of the higher institutions to which most of the junior college graduates will transfer. This is an aid to the transfer college in evaluating grades and allowing advanced-standing credit. Quite a number of the junior colleges have adopted the "honor point" system in use at Stanford University and other institutions in the country. In this plan a grade of "A" yields three honor points; "B," two honor points; "C," one honor point; "D" and "E" or minus (—), no honor points. An average grade of "C" must be maintained in order to graduate. This means that for every mark of "D" or "E," the student must make an offsetting mark of "B" or better in order to graduate. In some of the junior colleges "provisional" or "diploma" students must not only make up all entrance deficiencies, but must also maintain an average scholarship rank of "B" in order to

be recommended for transfer to upper division work. Others grant transfer recommendations to those who have made up all deficiencies and maintain marks of "C" or better in "certificate" courses, if the dean is satisfied that they are capable of doing upper division work.

Miscellaneous items.—A few additional items need to be mentioned.

Library.—A properly equipped library, conducted by a trained librarian, is an essential. The library room should be light and airy, with plenty of stack room and appropriate space for study tables. A great assistance in the selection of reference and other books is found in the list published by the American Library Association.

Question of free textbooks.—The organization of a junior college is usually quite a financial burden to a small community. The furnishing of free textbooks to students would therefore be prohibitive in many cases. The best means of meeting the situation is to establish a student store or "Co-op," either to furnish books at cost to students, or to return to students a substantial percentage of the cost in the form of dividends, after all handling and other expenses have been met. Some junior college student stores turn over their profits to the general student body fund.

School cafeteria.—Where the student body of the school is large enough to justify the outlay, a school cafeteria is an important addition to service equipment. It makes possible the furnishing of wholesome food to the students at cost, and thus promotes health at the same time that it lessens cost to individual students.

Electric program-clock.—Administrative efficiency is promoted also by the installation of an electric program-clock. When set to signal the beginning and end of class periods by a

system of buzzers in classrooms and halls, the program-clock assures accuracy and uniformity in the duration of lectures, recitations, and laboratory periods, and becomes a practical necessity.

Student body organizations.—The wise principal will encourage the students to establish a strong student body organization. It not only offers a considerable amount of opportunity for training in leadership, and the development of citizenship ideals and attitudes, but it may become a very considerable aid in the government of the student relations of the entire institution.

Student government.—A considerable measure of student government should be developed promptly. The principal and faculty need not surrender any of their legitimate prerogatives or moral responsibilities. The right of supervision, guidance, and ultimate veto must rest with the administrative authorities, but this does not alter the fact that a wise organization of student participation in school government may result in a high degree of institutional morale, not possible under autocratic methods of control.

Student clubs.—Tradition is often more potent than law. The establishment of the right sort of traditions has an important bearing upon college spirit. The organization of student clubs of the right sort will have considerable bearing upon the type of traditions that obtain. Men's and women's councils, honor societies (not of the mere scholarship variety), drama clubs, journalism, science, and various types of out-door organizations, may all make a contribution to a varied and interesting student life. In almost every instance there will be found talent for the organization of orchestra, glee clubs, and other musical associations. There should be a definite faculty policy in regard to club organization, and only such new ones should be approved

as make a distinct addition to school life by meeting a really felt need.

Assembly.—As a regular part of the college weekly program, the chapel, or assembly hour, can become a powerful integrating influence. There is probably no better time or place for an “orientation” program to be carried out. Such a course should contain a discussion of such topics as: our world as a part of the universe, our age in geologic time, our civilization’s place in history, our nation in the family of nations, our national ideals, and various state, national, and local topics of interest. There should also be discussion of the various topics of the curriculum with reference to inter-relations, duties, and responsibilities of educated persons, the business of living as well as of making a living, and the importance of definite life objectives.

Educational and vocational guidance.—A program of educational and vocational guidance can be carried out with mutual advantage to students and the school. Care exercised in the selection of curricula by students, under the tactful guidance of interested instructors, will do much to prevent unnecessary failures in school work. If, as a part of such a program, a joint faculty and student bureau of occupations is maintained, the guidance work will function more perfectly. Part-time positions for students needing to help themselves financially will be secured and permanent positions for those who have completed the terminal courses will also be found. The same bureau could handle student loan funds to the best possible advantage.

There are many other items in the organization and administration of a small junior college which might be mentioned, such as the necessity for faculty committees on social and other student activities, on publicity, on community co-operation, and on supervision and housing of students who come from other communities and must live away from home while attending junior

college. Also the need for faculty representatives on the committees which manage the various student clubs, and on the general student government council, should be emphasized. Enough has been suggested, however, to indicate that the handling of a small junior college is a big job, big enough and important enough to call for the highest type of administrative ability and technical training that the junior college board can secure in its principal and staff. It is a type of educational service, moreover, which is very rewarding in its possibilities of contact with and influence over ambitious, eager, and capable young people from every walk in life. What the small four-year college was to the country between 1850 and 1900, the small junior college can become to rural America today.

CHAPTER VIII

THE CITY JUNIOR COLLEGE

JEREMIAH BEVERLEY LILLARD*

In considering the city junior college it is assumed that the institution is under the general control of the City Superintendent of Schools, that the personnel of the Board is the same as that of the elementary and high school districts with which the junior college district is coterminous, and that the problems of the junior college are intimately linked with those of the municipality in which it is located. And it is further assumed that in the consideration of the city junior college, the origin and development, together with some of the problems involved, of a particular junior college will be of more value to the reader than a more abstract and general discussion of the subject. Therefore, unless otherwise stated, all data and facts presented, observations made, and opinions expressed in this chapter refer to or are based upon experiences in the Sacramento Junior College.

Growth and development of Sacramento Junior College.—The data in Table III (pp. 112-13) give a condensed history of its development.

Discussion of table of growth.—Additional facts which may or may not have modified data in this table are: Any capital city has among its residents many who have been college-trained, an excellent library, and other influences favorable to educational progress. Sacramento, in particular, has no other institution of strictly college grade, is surrounded by thriving towns, and is imbued with the spirit of the pioneer, who, having set up an objective, goes forward until that objective is reached.

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The extra-hour courses that were introduced in 1922 are mainly for adults, many of whom are teachers in service, but the personnel of these classes is by no means limited to this group. For example, in the music and dramatics classes non-teachers predominate. Among the extra-hour subjects offered during the year 1926-1927 there were: Applied Art, Art Appreciation, Public School Art, Biology, The Constitution, Introduction to the Drama (planned for the period from 1926 to 1929 inclusive), French, History of American Education, Italian, Music Appreciation, Music (Orchestra and Instruments), Psychology, Public Speaking, Public Education in California, and Spanish.

The budgets of several years since 1922 have never been wholly used, but in no year has the residue been more than approximately \$10,000. In planning the budget for a rapidly growing institution it is wise practice to include more than may be used. This residue is applied to reduce the estimated budget of the following year. It should be explained at this point that these budgets do not include interest on the bonded indebtedness of the college nor the funds necessary to pay off the bonds as they mature.

Among the facts not brought out in the table it should be mentioned that the offerings grew from six or seven in 1916 to one hundred and seventy in 1927, that the public service rendered by speakers, glee clubs, and similar agencies increased in about the same proportion, and that the city school system is operating on the 6-3-3-2 plan. Incidentally it may be interesting, if not disconcerting, to certain proponents of the 6-4-4 plan to know that the 6-3-3-2 plan has not placed upon the junior college the serious drawbacks prophesied for it. Its morale, the success of its products, which is the real test, and the long list of alleged weaknesses, are not apparent when it is compared with the junior colleges operating under the 6-4-4 plan.

TABLE III
GROWTH OF SACRAMENTO JUNIOR COLLEGE

Year	Regular		Extra-Hour		Total Enrollment	Average Daily Attendance	Graduates	Faculty	Budget	Remarks
	Classes	Enrollment	Classes	Enrollment						
1916-17	...	45	...	...	45	...	...	...		Junior College established under 1907 law. In high school building under high school principal with a Dean.
1917-18	...	68	...	...	68	...	6	...		
1918-19	...	~~37~~	...	...	~~67~~	...	...	...		
1919-20	...	0	...	...	0	...	...	...		College closed.
1920-21	...	37	...	...	37	...	...	...		College re-opened.
1921-22	...	132	...	...	132	...	5	...		New junior college district law passed.
1922-23	41	198	...	174	372	187	22	...	\$50,944	Citizens voted to form a junior college district. Dean of junior college, in full charge, appointed; college transferred to new but temporary quarters. Some instructors part-time in high school and part-time in college. Librarian appointed.

Site.—In selecting the site of a city junior college it is often difficult to combine size and accessibility and keep down the initial cost. But in a city with promise enough to warrant the establishment of such an institution all of these difficulties are easily overcome. Only faith, vision, and a knowledge of the illuminating history of the selection of elementary and high school sites are necessary; and this lack of foresight has often been applicable to standard colleges and universities as well. No junior college should be located on a campus of less than fifty acres and a larger area is desirable. Inaccessibility is not as serious as at first thought it might seem. Many of the students are independent of public transportation. Any educational institution has a tremendous pulling power in determining the direction of a city's growth, and transportation facilities follow growth. Although the advantage may be temporarily in favor of a close-in location there is much to be said in favor of a campus that is not too near the center of a city. But wherever its location some one or more individuals charged with authority and responsibility should be on the campus twenty-four hours a day.

Buildings and equipment.—Before locating any buildings, there should be a campus plan which provides for future growth. If the buildings are constructed so as to provide for expansion and to meet college requirements and not mere replicas of standard high schools, a good beginning will have been made. A good general principle to follow is that the inside should dominate the outside. It is highly desirable to provide lecture- and classrooms of varying sizes and with a wide spread from the smallest to the largest. It will be found economical to visualize classes that will run from 10 to 200 pupils. If lecture- and classrooms are to be fully utilized it is desirable, in fact, imperative, that offices for consultation and study be provided the instructors. Too much emphasis cannot be placed on the

necessity for providing restrooms for faculty and students, especially the latter, and the women students in particular. Comfortable cots may be secured at small cost. The experts in the several departments concerned at the University of California have given and will give helpful suggestions both as to distribution of space for lecture-rooms, laboratories, and store-rooms and equipment. If funds are limited a combination auditorium-gymnasium can be built that will, temporarily at least, serve all needs.

A Students' Co-operative store should be considered in the plans. Such a store does not, in a city, meet with the opposition that often exists in the smaller communities. Its business is small and quite negligible when compared with the total volume of the same business in the city. Its service to the students is readily recognized. It is important, however, that as far as possible a co-operative store limit itself to handling only such articles as students actually demand and use in their college work.

School Cafeteria.—Experience has demonstrated that a cafeteria is a necessity. There are many kinds of eating-places in a city, and too many of those which cater to student trade do not furnish wholesome food.

Equipment.—In the selection of equipment, experience indicates that as a general rule it is wise to use the types that the lower division instructors at the universities have found most serviceable. One junior college Board of Education included in the general contract practically all of the stationary equipment and some of the standard movable equipment, especially in the physics department, and saved thereby several thousand dollars. This implies, of course, that the architect be amenable to suggestion and that the instructors in departments where laboratories are used know what they need and want. It is sound administrative policy to consult these instructors when making building plans.

Budget.—It is the function of the Board of Education to pass upon the annual budget. The administrator standing between the President of the junior college and the Board, is the City Superintendent of Schools. In order properly to inform the Superintendent and the Board the President should know the budget thoroughly. In a city the taxpayers are near the college, and they, as well as the Superintendent and the Board will hold the President of the junior college responsible for efficient management. Besides, in a city there are other school budgets to consider. The bonding capacity of each of the three districts (elementary, high school, and junior college) is limited by law, and if each were bonded to the limit it would place a heavy burden on the taxpayer. The same general principle holds true for the annual budgets for maintenance. Consequently any consideration of the junior college budget must take into account the total annual budget. The problem is one of adjustment, and might, if not skilfully handled, be the source of trouble which would handicap the proper development of all the districts involved. In addition to the school budget there is also a city's bonded indebtedness and its maintenance budget to consider.

Administration and organization.—The organization and administration of a city junior college through the faculty and other employees is generally less difficult, although more complex, than in a smaller junior college. The generally larger enrollment facilitates the division of authority and responsibility, provided, of course, the President follows the administrative axiom that authority and responsibility must always be commensurate with each other. The President must always keep in mind, however, that his overhead expenses are not at great variance from a recognized standard. In a college of, say, a thousand students and a faculty of fifty there may be a President and three deans, all of whom do some teaching. These

deans are classified as follows: Dean of the College in Charge of Extra-Curricular Activities, Dean of Men, and Dean of Women. Some of their duties will be indicated later. There is also on the executive staff a Registrar and a Secretary. In addition to the regular instructors are two Librarians, one of whom is a Reference Librarian whose main duty is to assist students and instructors in reference reading.

Courses of study.—The city junior college can offer many subjects to meet the diversified interests represented in its cosmopolitan student body. This is true whether most of the students are preparing for upper division work, planning on making the junior college a finishing school, or taking special work to overcome deficiencies in their previous training or for any other purpose, immediate or remote. In listing offerings the administration must answer certain questions regarding each new subject considered. Some of these are: Will the budget permit it? Have we the instructor who can give it? Can we fit it into the program? What shall be the minimum enrollment to assure its organization and continuance? Have we the necessary equipment (including books) to give it well? And if only one or two or three can be offered what shall be the basis of selection?

All students who indicate the higher institution of learning in which they expect to do upper division work are given the information which will permit them to meet the prescribed requirements, and all students who do not expect to do so are given the information they need and want in the selection of subjects offered. Curricula are provided for those who are preparing for law, medicine, journalism, teaching, the several lines of commerce, nursing, dentistry, art, music, and what not.

Housing.—In the absence of dormitories the housing of out-of-town students who do not commute is important, but by no means difficult. Many of them make their own arrangements

by living with relatives or friends acceptable to them or their parents or both. It is a good practice for the Dean of Men and the Dean of Women to advertise in the daily newspapers during the late summer and then investigate and inspect the places answering the advertisements. If these are classified so that the Dean of Men has a list of desirable places for men and the Dean of Women does the same for the women, and if both from time to time during the college year follow up the policy in a diplomatic way, it is easily accomplished.

Extra-curricular activities.—As in all educational institutions the organization and administration of extra-curricular activities is a real problem. This is especially true in a city where the personnel of so many outside organizations overlaps that of the college. Shall attendance at any, some, or all social events be limited to students of the college? If not, who may attend? If limited to all student, may those from private and junior high schools as well as those from senior high schools be admitted? May mature adults as well as those approximately of college age be included? May any college events be held off the campus? If so, which? May certain organizations, such as glee clubs and bands, take trips, and, if so, under what conditions? And athletics! What administration does not know the problems included! Fortunately in a city there is little meddling in athletics. There are too many other interests. Believing that practically all extra-curricular activities are worth fostering, regulation at Sacramento is accomplished by the following methods: There is a large general committee made up of those faculty members who may be responsible directly and indirectly for any extra-curricular activity. Its chairman is the Dean in Charge of Extra-Curricular Activities. This committee meets in May of each year and agrees on the major events to be sponsored the following year and fixes the dates. Minor events are sandwiched in between. The committee follows a set of rules

and regulations dealing with the limits on the dates chosen, the supervision of the several events scheduled, the handling of moneys, and other similar matters.

Internal organization.—Other committees in the junior college are: The Athletic Committee is made up of the Dean of Men, the Dean of Extra-Curricular Activities, and the Comptroller. It represents the athletic policies of the college in all athletic relationships within and without the institution. The Executive Committee is composed of the Dean of Men, the Dean of Women, the Dean of Extra-Curricular Activities, the Comptroller, and the Registrar, who is its secretary. The Equipment and Supplies Committee is composed of representatives of all departments using equipment and supplies. Annually, in January, the President submits an estimated total budget for equipment and supplies, and the representatives of the several departments present their needs for the following year. Allocations are made on the basis of these discussions and other considerations, and requisitions are made accordingly. The Commencement Committee is appointed by the President. It has complete charge of the Commencement exercises. The graduating class, however, makes its own plans for the other events of Commencement week. The Faculty Social Committee is elected each year by the instructors and plans all social events in which members of the faculty participate.

The duties of the Comptroller, who is in reality also a treasurer, are many and varied. In a city where there are hundreds of stores, where the personnel of the Student Council and other organizations changes from semester to semester, albeit a few of the officers hold over for two or more semesters, and owing to the fact that students are not essentially different from adults in the outside world in matters of business procedure, it is desirable, if not imperative, that a permanent officer be appointed and that there be definite regulations regarding the handling of

funds. At Sacramento the Comptroller is a member of the faculty. The Student Council and all other organizations have student business managers. All moneys collected by them go through the Comptroller's hands and he has no authority to pay any bill that has not been authorized by official action of the organization to which it belongs. He also collects all college fees and fines belonging to the Board of Education and is the treasurer for the faculty. He is under bond, and his books are open at all times for inspection and audit.

In any large institution one individual must be held responsible for the checking in of equipment and supplies. The following plan has worked successfully: The custodian of buildings is given all purchase orders. When they arrive he checks them and then turns them over to the instructor by whom they are to be used, who re-checks them with his original requisition at hand. Both sign the order, which is turned in to the President, who countersigns it before it is sent to the business manager for payment. Also, any article belonging to the junior college which is loaned, sent out for repairs, or for any other reason removed and returned, must go through the custodian on a written order by an individual responsible to the administration of the college.

Student advisement.—The problem of advising students, referred to above, is an important one. The Dean of Men and the Dean of Women advise and confer with the Seniors in the local senior high school before their graduation. Help is given all who desire it regardless of whether or not they expect to enter the local junior college. It is obvious that no matter how well students may be guided in the high school, the experts in the receiving institution who are dealing daily with college conditions can be of splendid service. They are very real transition agents: They give the student time before entering college to think over his objectives; they assure him of friends at court;

they increase the probability that he will later avail himself of their counsel. The deans give the course in orientation required of all entering Freshmen, which is an added factor in bringing counsellor and student into closer relationships. And the student does seek counsel on a hundred different matters, most of them personal and many of them of vital importance to the individual concerned. The junior college has a tremendous responsibility in insuring those who attend it that, in its efforts to maintain a high standard of scholarship, it remains human. In the matter of helping new students these deans have the cooperation of an organization of students who, on registration days, meet all new students and steer them about until they feel at home.

Program making.—After the student has registered he is sent to the dean concerned. If the student has set up a vocational objective he is sent to an instructor who will assist him in making out his semester's program. Pre-legal students are sent to the instructor in law, those who expect to specialize in music to the instructor in music, and engineers to the engineering department instructor. Students who have no vocational objectives constitute a special group to be given special consideration by the deans. The deans check all programs before they go to the Registrar's Office, where they are re-checked before filing.

The Dean of Women has been given material machinery for furthering her work. Adjoining her office on one side are two small restrooms and a lavatory. On the other side is a fully equipped kitchenette, beyond which is a nicely furnished reception room. Across the hall are two women's lounging-rooms, comfortably equipped with tables, cots, and chairs. One is for teachers and the other for students. The reception room is frequently used. Some notion of its precise purpose is made clear in listing a few of the many events for which it has been used:

president's reception to instructors; series of receptions of women students to their mothers and friends; January and May receptions to Seniors in contributing and near-by high schools.

Student employment.—Many junior college students who live in the city as well as those from the outside need employment. If they are urged to indicate the fact when they confer with the deans at the beginning of the year or before, they can be advised to arrange their weekly programs to fit into part-time jobs in stores, manufacturing establishments, and elsewhere. The plan of having two students construct their programs so as to supplement each other on one job is desirable. The Dean of Men takes charge of placement for men and the Dean of Women for the women. Students living out of the city usually find their own summer jobs at home, but those living in the city are not, as a rule, quite so successful. In general, however, it is easier to obtain city positions in the summer than during the time college is in session, because this is the time of the year when many employers and employees take their vacations. On the other hand, except in service stations, ice cream parlors, and similar establishments, much of the summer trade is shifted to the small towns and the summer resorts.

Student participation in college life.—In a city junior college it would seem inevitable that the students would not participate freely in the life of the institution because of their other affiliations. With us this is not true, but it is a problem which the city junior college cannot treat lightly. The question whether it is to be a glorified high school with all the restrictions that are apparently necessary for controlling high school pupils or whether it is to be a lower division college made up of students who with a minimum of intelligent guidance can, in a large measure, solve their own problems, must be answered wisely. It has been the experience of the city junior college,

located on its own campus and in which no cramping high school traditions prevail or will be permitted to intrude, that a real college atmosphere exists. The Sacramento Junior College is in a system operating on the 6-3-3-2 plan, a majority of its faculty is made up of recent college graduates, and the students have been encouraged to initiate, organize, and administer their affairs with legitimate college freedom. They have been encouraged, with a minimum of regulations, to experiment under conditions where failure is less serious than it would be in the outside world later on. Despite the wails of older critics there is something inspiring and heartening in seeing a group of enthusiastic underclassmen assuming responsibility for developing and carrying out college projects. Any junior college which fails to recognize the important aspects of this problem is failing to realize the possibilities of its contribution to the leadership of the future, and, paradoxical as it may seem, to the encouragement and development of real scholarship. The following organizations under the management of students are in operation: The Associated Students, which has general charge of all student affairs including athletics, debating, dramatics, and social events; it publishes a weekly and an annual. In the college are German, Spanish, and French clubs, a big-letter, and a small-letter society, an engineers' club, men's and women's glee clubs, quartets, an Art Students' League, a Music Students' Association, an English honor and a Junior College honor society, a Philosophical Club, a Cosmopolitan Club, and a College Y.

Scholarship.—Administrators of a city junior college are quite used to hearing visitors casually remark, "Of course in a city you have so many distractions that you have difficulty in keeping up your standards of scholarship." As a matter of fact the data at our disposal do not verify this statement. Students come from remote districts, commute, and live in the city where the college is located; and conditions favorable and unfavorable

for effective study exist for those who live in boarding-houses and for those who live at home. The fact that certain students have been spoon-fed does not absolve the instructor from using every known device to help them to take care of themselves; and the fact that some of them do not have favorable study conditions where they lodge makes it necessary for the college to provide on its campus the best possible facilities and conditions for effective study. Indeed it is the business of the college, by every legitimate means, to remove as many handicaps as possible.

Mid-year promotions.—In a city mid-year promotions affect the junior college calendar, especially if the college year is shorter than the high school year. Suppose that the college year is thirty-six weeks in length and the high school forty and both open at the same time. This is precisely what is done; and by having a junior college mid-year vacation, the high school graduate may enter the junior college on the opening date of the second semester. The previous year the junior college opened two weeks late in the fall to accommodate mid-year transfers, but this was abandoned because the vacation is necessary to give the Registrar a chance to clear up the business of the first semester and get ready for the second. When the larger outside contributing high schools turn out any considerable number of mid-year graduates a conference looking to some kind of adjustment will probably be necessary.

Assemblies.—In a city there are numerous agencies that attempt to get hearings before college classes and assemblies, and some of them go so far as to insist on selecting the time most convenient for them to appear. They often exert great pressure, and the administrator who once yields to their requests or to the appeals of others for permission to distribute documents or post notices is doomed to grief. A safe procedure

to follow is to set aside in the college schedule one hour a week for holding assemblies, an hour when no college classes can be listed, and to make the general rule that assemblies may be held at no other time.

Co-operating agencies.—A city junior college is regarded by service clubs, parent-teacher circles, community drives, campaign directors, state societies, and similar organizations as a service institution. In Sacramento Junior College, members of the faculty have given seventy-five public addresses, and the musical organizations have given over a hundred public performances. The Art and Dramatics departments have also done a great deal along this line. If not controlled this may interfere with the main purpose of the college. In fact, it is one of the duties of the extra-curricular committee, already referred to, to keep a proper balance between curricular and extra-curricular activities. How to stimulate and encourage initiative and enthusiasm of students and, at the same time, get the maximum of efficiency in the regular college work, is a question of tremendous importance in any college. After all, unless the sacrifice be too great, there is much to be gained for the city and the section in which it is located, for the college, and for the participants, by rendering such public service. Service clubs (and similar organizations, too) may be all that their name implies. One club gives eleven scholarships to the local junior college and another one a scholarship to a graduate who elects to continue work in an institution of higher grade. Another club is planning on establishing a loan fund for needy students.

Traditions.—College customs which in time become traditions and many of which come in ready-made from other collegiate institutions cannot be idly ignored. Every city has a history and its history may reflect itself in these customs. For example, at Sacramento, the legacies of the pioneer are influ-

encing, as they properly should, to some degree at least, the junior college. How many of the traditions of the older colleges should or will become fixtures must, it seems, be settled at the time of their advent or never. It is well to bear in mind that while the junior college must be free from high school traditions it must also beware lest it find itself dominated by standard college and university traditions. It is a new and unique institution and must in a large measure make its own traditions, evaluating and adapting them to fit its particular ideals and objectives.

Segregation of recommended and non-recommended students.—Two types of high school graduates enter the junior college: Those fully recommended and those not fully recommended. They are locally designated as Form A and Form B students. The plans of procedure vary in city and other junior colleges. If the generally recommended plan of segregation be followed it may be done in several ways: (1) on the basis of the high school principal's recommendation; (2) on the basis of an aptitude test; (3) on the basis of the number of recommendations in the several subjects offered for matriculation; (4) on their high school grades in subjects students elect to continue in college; and (5) on the basis of their vocational objectives. Or, they may not be segregated at all. If segregation is resorted to it is clear that the city junior college can do it easily, but even here the element of cost may outweigh other considerations. In making the decision many things must be considered, some of which are: Is the procedure to be the same in the purely lecture, the discussion, and the laboratory classes? Will the students in classes in certain subjects be more handicapped by being divided into very small homogeneous groups than by being mixed in larger heterogeneous groups? As a matter of fact many students find themselves in colleges where segregation is not practiced. Whether or not more students

find themselves in colleges where segregation is practiced, the oracle, so far as the author knows, has not made known. A comparison of the grades of students in higher institutions who transfer from junior colleges where both plans are followed do not reveal an iota of difference, and recent findings indicating that 40 per cent of the non-recommended group rate higher in college than the average of the fully recommended group would seem to confirm the idea that even temporary segregation of college Freshmen into A and B groups for instructional purposes may be doing an injustice to many students and placing an unnecessary responsibility on the administrative machinery of the college and an unnecessary expense on the taxpayer.

General considerations.—Such problems as requirements for admission, prescribed subjects, scholarship requirements, grades and grade points, disqualifications for deficiencies, attendance requirements, students' programs, fees and deposits, requirements for graduation, withdrawals, recommendations and transfers, salary schedules, and faculty meetings have been omitted because the procedure is more or less alike at all junior colleges wheresoever located.

A city junior college is complex. Complexity carries with it concomitant responsibility in organization, administration, and supervision. And complexity also carries with it abundant possibilities for mistakes. And just now when the whole junior college movement is under fire by certain critics it is imperative that it justify its existence by efficient management, and by a service which can be rendered as effectively in no other way. An encouraging element in the recent activity of its adverse critics is found in the old adage that "nobody kicks a dead horse."

CHAPTER IX

EXTRA-CURRICULAR ACTIVITIES IN A JUNIOR COLLEGE

WILLIAM D. FULLER*

The problem.—The educational value of extra-curricular activities is no longer a matter of argument. With the junior college it is a matter of determining what these activities shall be and how they shall be controlled. With the small junior college where the emphasis is placed upon striving for academic standards in the preparation for upper division work, there is a danger of the institution becoming an educational factory. In a study made of the problems of junior colleges as expressed by the deans, frequent mention was made of the problem of controlling social activities. Also in a study made of the criticisms of fifty junior college graduates who had gone on to upper division work a lack of college spirit was frequently mentioned. We must keep in mind however that these graduates were of the earlier junior college classes before the social activities had been developed. The extra-curricular activities of the junior college must spring from the desires of the students, and any artificial social control that does not recognize the fundamental principles underlying student desires will fail.

What the high school graduate expects of college.—When the student graduates from high school and enters college he expects to find something new. He is "going to college" and he expects to find there an atmosphere different from that of the high school. He himself comes to the college with a changed point of view.

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How a junior college meets this demand.—It is plain that a junior college housed in a part of the high school plant, tutored by high school instructors, controlled by high school discipline, where all the members of the class are familiar faces, and where the student goes home at night to the same environment that he has had during his four years of high school, is a disappointment to the would-be college student. It is a difficult problem for the dean of the junior college to satisfy the longing for college freedom and college spirit without demoralizing the high school in which his students carry on their activities. The activities of the junior college student are, at first, viewed by the public in the light of high school activities, and soon criticism is brought upon the dean for the looseness of his discipline. At the same time criticism comes from the student body because of the narrowness and lack of freedom. These conflicting forces place the dean of the small junior college in an embarrassing position. Another factor of limitation comes from the fact that a large percentage of the student body come from distances such that it is impossible to get them together for evening activities. If transportation is furnished, those who live at some distance must leave the building in the afternoon.

Still another factor that tends to mitigate against the development of college spirit is the small enrollment as compared with the high school. The high schools of California are organized on such a large scale, with such extensive plants, and such varied programs of activities, that they correspond well with good-sized colleges. They are able to conduct their activities on a large scale through the organization of student body associations, clubs, athletics, and so on. In comparison with these we find the small group of junior college students more or less at a loss to know what to do to develop an *esprit de corps*, knowing that anything that they may undertake is limited both by financial support and number of participants and that it looks

insignificant in the sight of the high school. In many cases they are not able to compete with the high school even in athletics and other competitive activities. They must turn their attention to quality production.

In cases where the junior college has an enrollment of three hundred or more and especially when these are separately organized and distinct from the high school, where the instructors are largely devoting their entire time to junior college work, the problem of developing the college spirit is different. Here one limitation comes from the fact that there are no traditions and that students are retained for two years only. In spite of the limitations much is being done in the leading junior colleges to satisfy the demand for college activities and college spirit. A study of these attempts reveals the following activities, some of which are general and others peculiar to certain schools.

Student activities in the Modesto Junior College.—In discussing the activities of a particular junior college it is not the intention to set up a model for other institutions but simply to show what has been done in one junior college during the past five years to take care of the student desires for social activities. The various organizations together with their objectives, as they are stated from a student point of view, will first be enumerated and later commented upon as to their educational value.

The student body association.—Next to the influence of athletics in developing college spirit is the student body association. This organization is made up of all members of the school who pay their dues, amounting to \$7.50 per year. As privileges the membership carries the right to vote on student body affairs, the right to hold office and represent the school in various activities, and reduced prices or admission without extra fees to various school activities. The object of the association is to act as

a clearing-house for all student activities. Each independent club or organization springing up spontaneously sooner or later seeks admission to the student body association in some form of affiliation. All receipts coming from various school activities are pooled in the association treasury and out of it all expenditures are apportioned and paid.

The association is managed by a board of directors including a faculty adviser and the dean as ex-officio members. Much of the success of the management of student body affairs depends upon the character of the faculty adviser. During the first year the association, a feeble organization, carried on few activities, aside from athletics, and ended with a deficit of a thousand dollars, after which it was reorganized and has had for the past four years as faculty adviser a man of rich scholarship, keen insight, and business ability. His direction has come to be welcomed and his judgment on critical points accepted in a co-operative spirit. He aims to get this with the least domination, and out of it grows a training for those associated with him that is a valuable part of their education. As proof of its success, the deficit was paid and the association now has a fund of between three and four thousand dollars upon which it can draw for any activities. When a play requiring payment for royalty is to be given, a check can be immediately forwarded, and advantage can be taken of discounts in the purchase of supplies for athletics. Not only has the association been conducted on a sound financial basis but it has taken over one after another of the various activities for which it is financially responsible.

Women's Association.—One of the most valuable assets of the school in the development of college spirit and goodwill is the Women's Association, which started as an organization by itself with a few girls. It now has a membership open to all the girls of the college who hold student body tickets, which

tends to make the institution more democratic. The officers consist of President, Vice-President, Secretary, Treasurer, Chairman of the Social Committee, Chairman of the Welfare Committee, and Chairman of the Athletic Committee.

The aim of the association is to promote the spirit of good fellowship, loyalty, and democracy. Beside the monthly luncheons which are enjoyed by all the girls, various social affairs have been given. Among these may be mentioned a jinks party as a form of reception for Freshman girls, a costume party, an Irish luncheon, a lawn party, and at the last of the year a mother-daughter tea. This latter was the only formal affair and had its value in the fact that the girls carried out very successfully a formal reception and tea. Someone may ask how these functions of the Women's Association differ from high school activities. The difference is in the character of the program and in the attitude of the girls, which is that of maturity. Proof of this is shown in the fact that women members of the faculty are invited and enjoy the meetings thoroughly.

The writer cannot speak too highly of the influence of the Women's Association upon the Freshman girls who come from different high schools and feel themselves more or less strange at the opening of school, and also the influence upon the girls themselves in their opportunity to train for leadership.

The college paper.—Under the leadership of the instructor in journalism, as faculty adviser, a staff of twelve students is engaged in editing and publishing the college paper. *The Collegian* makes an appeal to the various organizations of the school and stimulates an interest in school activities. Subscription is free to those who hold student-body tickets and the bi-weekly issues are looked forward to with eagerness. Besides tending to develop college spirit and cement together the various interests it gives opportunity for training of a worth-while nature in journalism.

The Rifle Club.—The Rifle Club is interesting in that it had its origin with a group of young men who wanted to compete in the National Inter-Collegiate Shooting Competition, in which three of its members won national distinction and the college ranked second. These young men financed their activities by membership dues. A member of the faculty was asked to act as adviser and to witness the contests. At the present time the dues are reduced to twenty-five cents, and the organization can look to the student body association for financial support. The past year the membership was eighteen.

The Varsity Club.—The Varsity Club was organized in 1923 with a membership of fifteen men and with the Dean and two members of the faculty as honorary members. The qualification for membership is the owning of a letter in a major sport. The purpose of the club is to uphold the dignity of the letter. The club states as its objectives for next year, aside from a few social functions, acting as a permanent rally committee, functioning as a vigilance committee, and seeing that the various sports are conducted in an orderly manner. The club numbers thirty-eight.

The Parochy Club.—Parochy is the women's athletic club. Membership is based on two hundred athletic points which are awarded in the various school teams. A letter is awarded only to those who win six hundred athletic points. The purpose of the club is to advance the interest in athletic activities and to sponsor and promote all sports. Several social affairs were given during the year, including a bridge party and the initiation of new members. The girls have chosen pins to be worn by all members.

The Y.W.C.A.—The college Y.W.C.A. has as its objectives stimulating Christian fellowship, furnishing interest in better things of life, and setting a standard of high ideals. Three meetings were held each month, one in which general discus-

sion was carried on, one in which a student program was presented, and one in which a talk was given by an outside speaker. The chief social events of the year were a joint luncheon and a joint banquet with the Y.M.C.A. Membership included thirty-nine women.

The Y.M.C.A.—Like the Y.W.C.A., the Y.M.C.A. of the college is a self-organized group choosing its own faculty adviser. It holds meetings every Tuesday noon and aims to furnish interesting and instructive programs for all college men. The college association was represented at the Bible Institute and at the Y.M.C.A. Convention. At the latter there were ten men from the college. During the past year the college "Y" attempted the publication of a semi-monthly paper giving the leading events of the county "Y" work. One of the members designed a "Y" pin which was adopted by the National Field Council as the official pin. Membership included forty-six men.

The Home Economics Club.—The Home Economics Club of twenty members has been affiliated with the national chapter. During the past year the club visited various high schools in the county and gave talks on the subject of home economics. The social activities have tended to increase the interest in the home economics department. They included a dancing party in December, followed later by a bridge party, two luncheons, a farewell party to Sophomore girls, and a week-end house party in the mountains. The scholarship pin was awarded to the girl majoring in home economics and receiving the highest grades.

The Engineers Club.—Among the new clubs which have been organized during the past year is the Engineers Club. This club is a junior chapter of the American Association of Engineers. It began with a membership of 75 per cent of all men enrolled in engineering courses, but soon gained 100 per cent membership, in recognition of which it was presented a silver loving-cup by the District Director of the American Association

of Engineers. This was the first club west of the Mississippi to obtain a 100 per cent membership. The club organized trips to various engineering projects such as the raising of the span of the famous Carquinez bridge.

Women's Glee Club.—A keen interest has been taken by thirty-two women in the work of the glee club in providing musical programs for various local entertainments. A group of eighteen girls from the club assisted in an interesting program given over radio Station KPO.

Men's Glee Club.—During the past year the Men's Glee Club has had an increased membership. Their interest is shown by the fact that its members were willing to sacrifice their noon luncheon hour for rehearsals in order not to conflict with the regular schedule of the college. The combined men's and women's glee clubs presented an attractive cantata, *The Building of the Ship*, and later the opera *Firefly*, by Friml. This presentation was without doubt the most ambitious and successful of the musical events during the life of the college. The opera was presented on two nights by a well-chosen and thoroughly trained cast. The cost of production including royalties was approximately nine hundred dollars. The presentations were given in a downtown theater, which was filled to capacity both nights. Critics from outside pronounced it a remarkably finished product of college standard. Such productions do much not only to develop college spirit and atmosphere but to serve the surrounding territory with high-grade entertainment and bring people to realize the value of the institution to the community.

The Dramatics Society.—One of the most successful organizations of the college has been the Dramatics Society, with sixty-five members during the past year. The society has, as faculty adviser, the instructor of dramatics, whose work has been recognized by the state association in making her the

editor of the state journal. The character of the work is indicated by the type of plays presented. The past year the following plays were given in a downtown theater, each for two evenings: *The Admirable Crichton*, *Icebound*, *Easy Payments*, and *As You Like It*. There had been a demand on the part of the student body for a lighter and more popular type of play. To satisfy this, *Easy Payments* was given, after which the students admitted that the policy of the department in presenting a higher type of play and building up a community interest in better plays was best, and there was no longer a desire for the lighter play. The aim of the society to create artistic presentations, rather than to make money, as is often the case in high school plays, has been well realized.

Beta Phi.—Beta Phi is the natural science club, which promises to be one of the active organizations of the future. The club was organized in March with an aim of promoting interest in science. Three meetings were held and a keen interest was taken by a membership of eighty-six.

The Debating Club.—During the past year the debating club of twenty-four members was most active. Meetings were held once a month including social affairs. Several debating teams were trained by the coach, which resulted in winning the championship of the league.

The Annual.—A staff of thirteen members was busy throughout the year in editing the annual. Members of this staff must have the approval of the faculty and continue their service for a year. An attempt is made to get away from the high school annual and produce something worthy of a college book.

The Masque.—The girls of the college present a masque in the park each year in June. This annual event is looked forward to by the townspeople with considerable interest. Costuming

for the masque is done under the direction of the Art and Home Economics departments.

Athletics.—The most common extra-curricular activity of the junior colleges is athletics. The college here treated has been fortunate in having as its coaches men who were interested not only in winning teams but in the development of men, and there has grown up on the part of the student body a very strong feeling for clean and wholesome sportsmanship. The junior college offers more opportunity than the larger institutions for individuals to participate in competitive games and consequently opportunity to develop outstanding athletes. Evidence of this is found in the number of junior college graduates at the university who have won distinction in their various lines. The usual forms of athletics are all carried on with a larger number of students participating. For two years the college has been the winner of the California Coast Basketball championship. An unusual interest is taken in track and field work. Owing to the interests of the Dean and his skill in coaching, many good track men are developed. A list of college records may be of interest: 100-yard dash, 10.0; 220-yard dash, 21.9; 440-yard run, 50.4; 880-yard run, 2.03.3; mile run, 4.41.0; 120-yard high hurdles, 15.3; 220-yard low hurdles, 24.4; shot put, 46 ft. 9 in.; discus, 142 ft.; javelin, 178 ft. 9 in.; broad jump, 20 ft. 7 in.; high jump, 5 ft. 11 $\frac{3}{8}$ in.; pole vault, 12 ft. 6 in.; 880-yard relay, 1.35; mile relay, 3.35.3. Football, tennis, and baseball for men, and basketball, volley ball, baseball, and tennis for women complete the list of athletic activities.

School assemblies.—One of the growing forces in developing school spirit is the student participation in school assemblies. These assemblies are usually called at the request of the student body for the purpose of discussing various topics of interest to the students in general. They give opportunity for leadership in taking charge of an assembly and for extemporaneous speaking.

Student activities and the faculty.—Much of the success of the student activities in a junior college depends upon the attitude and assistance of the faculty. If every member of the faculty saw the functions of the junior college only in terms of hours and grades in his own subject, there could be no wholesome development of student activities. In all of the activities mentioned above the more or less wholesome influence of the faculty may be seen. Junior college students are easy to lead; they are not spoiled nor hampered by traditions. They welcome leadership, but not domination. The work is somewhere between that of the high school and the university in the matter of direction. Space does not permit a discussion of the influence of the outside activities entered into by the faculty members themselves in developing a genuine college atmosphere. Another factor in the development of activities is the harmonious and co-operative spirit of the faculty itself, working under a dean who is always conscious of the educational value of the activities and ready to listen to the desires of students. One of the first plans at the opening of the school year is to develop this spirit through the faculty club and a picnic. This is followed by a general school picnic planned and carried out jointly by the faculty and students.

What activities mean to the school.—The junior college as a new institution having democratization as one of its major objectives, can accomplish this through the extra-curricular activities more thoroughly than through classroom assignments in subject-matter. It is the extra-curricular activities that bring the junior college to the attention of the public, and their character must be such as to lift the college above the level of the high school. It is the high character of activities and thorough co-operation of faculty and student body that the junior college should strive to attain. Its activities must be distinguished by the quality of performance.

The influence of the activities upon neighboring high schools.—Both the faculty and the students participate in furnishing service and entertainment for the neighboring high schools. Musical programs, plays, debates, assembly speakers, judges in contests, etc., furnish valuable service to the high schools and set college standards before them. In one case, a high school twenty-five miles distant, had not shown much interest in the junior college until the community decided to ask the college to put over a lyceum course for them. One of the numbers given was a college play for which a nominal admission charge was made. This was sufficient to pay the traveling expenses of the talent for the entire course. This school now looks upon the junior college as its own.

Later activities in the university.—The two years' training in junior college is not lost when the student enters the university. Two of the athletes of the University of California who were selected to be sent East were from one junior college. At the same time two boys received the "C" in athletics, one was elected to Phi Beta Kappa, another to an honorary society, another as treasurer of the Chemical Association, another to a pre-medical association, one given a part in a play, one selected as stage manager of university dramatics, while a young lady was elected as vice-president of the W.A.A. All these students were from a small group transferred from one junior college to the university.

Extent of participation.—Checking over the list of activities and the number of students participating, we find 511 enrollments in a school of less than 400. This includes the officers and members of the clubs but not the names of those in the Student Body Association, which includes practically all. It is safe to say that 80 per cent of all the students may be found in one or more of the school activities, not including athletics.

One cannot overestimate the cultural value of this work to the student and to the community. The fear that the junior college will lose the cultural training of the old type college is easily dispelled, especially if we take a more modern view of the meaning of culture. What these young men and women are getting from being associated with faculty leaders in the different lines and from the added opportunity for participation in student activities may not be the same as that given by the old type of college, but it is surely fitting them to live under modern conditions by keeping them in an uplifting democratic environment for at least two years beyond the high school.

CHAPTER X

CO-OPERATIVE PART-TIME WORK IN THE JUNIOR COLLEGE

ARTHUR G. PAUL* AND HOWARD H. BLISS†

The co-operative idea in education.—Co-operative education is no longer a theory. Fifteen colleges and universities are operating co-operative departments.

University of Cincinnati.—In 1906 Dr. Herman Schneider, who had worked his way through Lehigh University, secured authority at the University of Cincinnati to try a plan which he had worked out as a result of his experience as a student—the co-operative plan.

Cincinnati had at that time 134 engineering students, 27 of whom elected to work upon the new basis and 107 remained in the regular courses. Co-operative option was offered to students in mechanical, electrical, and chemical engineering. In 1909 it was extended to the students in civil engineering. The number of students in the regular courses dwindled until they were discontinued in 1919, because they were too small to maintain. The number of co-operating firms has risen from 15 in 1906, to over 200 at the present time, and the range of these firms has steadily widened. At first they were all purely local. Today there are many at Dayton and others at Hamilton, Columbus, Cleveland, and even at more distant points. The co-operating firms include rolling mills, iron-works, public service corporations, a wide variety of manufacturers in the metal trades, railways, civil engineering operations, chemical plants, and many others.

At first the course covered nine months a year for six years. Later it was changed to five years of 11 months each. A period of alternation of two weeks was adopted and maintained until this year, when it was

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lengthened to one month for the third, fourth, and fifth years only, the first and second years remaining on the bi-weekly basis. In 1919 the College of Commerce was merged with the College of Engineering, and its students were also placed upon the co-operative basis in banks, offices, and various business institutions. In 1920 women were admitted to co-operative instruction in the School of Commerce, and they also are working on a similar basis. There are now at the College of Engineering and Commerce in the University of Cincinnati about 1,000 students, all on the co-operative basis. The system has had a longer try-out here and on a much larger scale than anywhere else. The fact that the co-operative plan has completely superseded the regular course is significant.¹

Antioch College.—Antioch College represents an institution entirely given over to the co-operative plan.

The Antioch purpose is to bring about a balanced development of character, intelligence, and power. Any novelty in its program is due to the endeavor to correct prevailing disproportionate emphasis upon elements of personality or of environments. Antioch combines in six years a liberal college education, vocational training, and apprenticeship to practical life.

Required courses include widely varied liberal subjects, and training for physical health and economic sense. Vocational courses help students decide upon their vocations and prepare for callings such as engineering, business administration, journalism, home and institutional management, and education. Administrative ability is emphasized, rather than specialized technique.

Half-time practical work in alternate five-week periods develops responsibility and helps students decide upon and prepare for vocations.²

Antioch was founded in 1853, reorganized in 1921.

Antioch is co-educational. Enrollment is limited to about 600 students.

The students are from 41 states and 10 foreign countries . . . 28 per cent are from Ohio.

They work in 11 states, with 151 employers.

¹ Joseph W. Roe, "Co-operative Plan of Engineering Education," *Management Engineering*, Vol. II, No. 5 (May 1922).

² *Antioch Notes*, December 1, 1925.

Antioch confers B.S., M.S., A.B., A.M. degrees.
It co-operates with schools of art and music.¹

The co-operative plan at Riverside.—Although co-operative education has not been introduced on a very large scale in institutions of junior college rank, where it has been tried under proper direction a measure of success has been achieved.

Young men and women of Riverside County have an unusual and remarkable opportunity for a professional education in a special co-operative course which has been inaugurated and carried on successfully at Riverside Junior College for the past five years.

Institutions co-operating.—In co-operation with many of the leading engineering and technical organizations of southern California this institution is giving practical as well as theoretical training for such professions as engineering, nursing, library work, and architecture. Its graduates finish in two years at such institutions as the California Institute of Technology, Oregon Agriculture College, and the University of California, generally with high honors. With or without the final instruction in these higher institutions these Riverside students are going out into the world equipped with technical instruction and with a background of varied and important experience in the profession in which they are to find their life work.

In the operation of the co-operative course the junior college students are placed in actual employment with co-operating firms, including such organizations as the Riverside Community Hospital, The Riverside Portland Cement Company, Hanford Iron Works, Douglas Airplane Factory, The Southern Sierras Power Company, Riverside Public Library, The Santa Ana Sugar Company, and G. Stanley Wilson, Architect. These firms have all taken "co-op" students at one time or another.

¹ *Ibid.*, March 15, 1925.

Alternating periods of study and work.—For periods of six weeks at a time these students carry on as regular employees the varied activities to which they are assigned with their employers, and receive compensation according to the type of service rendered. Their only contact with the junior college during this time is found through occasional evening meetings and in visits made periodically to the employing firms by co-ordinators on the junior college faculty. At the end of a period of work the students report at the junior college for six weeks' instruction in general educational subjects and technical subjects particularly related to their employment, such as surveying and electricity and chemistry for engineers, bacteriology and anatomy for nurses, etc. In the meantime equal groups of students have gone out from the institution to take the places left by the first group. Each employer has continuous service, as each job is held alternately by two particular students. Each six weeks they change about and the two partners serve as one employee.

Length of course.—Owing to the fact that the co-operative student spends alternate periods acquiring technical experience, the usual first year academic work is ordinarily completed in two years. At the end of that time some students transfer to regular status, entering the Sophomore class either at the junior college or at some other institution. However, with the opportunities for study during the working periods, a large proportion finish the junior college program within three years entirely on the co-operative basis. Thus in a total of five years several of the students have had a full year and a half of experience in architecture or engineering and a full college course with a degree from the California Institute of Technology or the University of California. On the other hand, many prefer to remain for four years in the co-operative course to make the most of the opportunity for technical work under exceptionally advantageous conditions.

Organization of courses in six-weeks units.—In an attempt to make the co-operative students in a real sense a part of the institution, certain required academic courses are organized on a year's basis. The material in such a course is divided into six-weeks periods, each part being complete in itself. A co-operative student is thus able to complete such a course in two years, and a regular student would carry the course one year. That is to say there is no repetition of the work for the co-operative students. They get three of the six-weeks units one year and the other three of the six-weeks units the second year. Political Science 10, Economics 1, History 2, and Human Body 1 are the courses which are organized under this plan.

The registration of the co-operative students in these courses has not been large enough to make it possible to determine how effective it is from the teaching point of view, or from the standpoint of the success of mixing co-operative and regular students in the same classes.

Enrollment in co-operative courses.—The enrollment in the co-operative course at Riverside has risen steadily from its beginning in 1922. There were 12 in the course the first year, 23 the second year, 36 the third year, 43 the fourth year and over 50 for the fifth year. The first graduates from the nursing course, 5 in number, are completing the work at the Riverside Community Hospital. Three graduates of the library course have finished and are now in positions of responsibility in different libraries. A large number of the men who have taken the course are either at work in engineering and architecture or are continuing their education in higher institutions in California and elsewhere.

Inspection trips featured.—Among the interesting features of the course as administered at Riverside are the inspection trips which the co-operative students are required to make each two or three weeks during their periods at school. All parts of

southern California are visited on these trips and the student's contacts with all types of professions and commercial activities are thereby broadened.

The Scrips Biological Institute at La Jolla, the Golden State Silk Manufacturing Company at Hermosa Beach, the steam plant of the Southern Sierras Power Company at San Bernardino, the United States Experiment Station at Indio, the Douglas Airplane Factory at Santa Monica, the Pasadena Community Play House, the Hydro-Electric Plants of the Edison Company at Redlands, the refinery of an oil company at Long Beach, the observatory of the Carnegie Institution on Mount Wilson, Bullock's Department Store in Los Angeles, the plant of the Southern California Gas Company at Colton, the factory of the Edison Electric Appliance Company at Ontario, the Exchange Lemon-Products Company at Corona, and many other institutions of great interest have been visited on the inspection trips, which are made in automobile stages chartered for the occasion. Competent guides are furnished by the organizations visited, and several co-ordinators always accompany the excursions to make sure that the greatest educational value is derived from them.

Special courses open to co-operative students.—Among the special courses given for co-operative students at the junior college are those in Music Appreciation, English, Design, and Art Appreciation. These courses encourage and heighten the enjoyment of art in various forms. Many of the trips and outings are especially arranged to permit aesthetic appreciation of nature and art. Holiday and vacation trips to the Colorado desert, the Torrey Pines Preserve, and the southern California mountains are organized every year, with this end in view.

Co-op Club.—An organization known as "The Co-op Club" was created by the students in 1922, the first year of the course given in Riverside. This club holds dinner meetings every six

weeks, usually in Riverside, San Bernardino, or Los Angeles, and invites as its guests the leading engineers, educators, and executives of southern California. Among those who have addressed "The Co-op" since its foundation have been chemists, industrial managers, bank presidents, university professors, engineers, superintendents of schools, the treasurer of a large corporation, the mayor of a city, a librarian, the president of a woman's club, the president of the State Board of Education, and many other persons. Through these and other social activities co-operative students find ample opportunity to develop useful abilities otherwise neglected.

Co-ordinators.—Five members of the college department have been assigned to work in connection with administering the co-operative course. They serve as "co-ordinators," who put students on jobs and arrange for transferring them from time to time when circumstances make it advisable. They teach "orientation" classes at the college for the co-operative students and accompany them on their various trips.

Special administrative features of the plan.—In order to give an adequate appreciation of the nature of co-operative curricula of a junior college, the following statements are given:

Requirements for admission.—Admission to the co-operative course is limited to those who are qualified to make the best use of the opportunity. Co-operating employers have received in the past intelligent and consistent service from student employees, above the average in industry, interest, and initiative, and they have a right to expect the standard to be maintained. The course is designed primarily for the development of leaders in the professions, and applicants are required to give evidence of above average achievement in high school. Selection of co-operative students is based on superior scholarship, practical work, character, and personality.

Enrollment.—No tuition is charged at the junior college, but a “co-ordination fee” is paid annually by co-operative students to cover transportation on inspection trips and certain other special expenses. The fee is \$20 if paid after June 15, but it is reduced to \$15 if paid on or before that date. Applications received before June 1 are acted upon by the Department of Co-operative Education in time to settle the arrangements by June 15. It is best to complete the enrollment before the vacation period; it is then possible to arrange for co-operative employment most conveniently for both the student and the employer.

Applications received later cannot be acted upon by the Department until mid-September, and then working conditions are much more difficult to adjust.

Each application must be accompanied by a filing fee of one dollar, which is retained in the Co-ordination Fund whether the application is accepted or rejected. The remainder of the co-ordination fee (\$14 or \$19, as the case may be) must be paid in full before the student is registered in the junior college, or put to work in co-operative employment. These fees are not refunded if the student withdraws from the course.

Riverside School for Nurses.—The School of Nursing of the Riverside Community Hospital was founded in 1902, its object being to educate young women to become thoroughly competent in the practice and theory of nursing. In 1924 an affiliation was effected with the Riverside Junior College whereby a student may complete all of her requirements for state registration and at the same time qualify for graduation from the junior college at the end of the three years’ combined course.

The work of the course is varied and interesting. It has the advantage of teaching by the laboratory method. Practice and theory are so interrelated that the interest of the student is con-

stantly stimulated and enthusiasm is sustained. The student nurse is given the opportunity of making social contacts in the college and thus the isolation experienced by many students in training is obviated. For the girl who desires a college education as well as a nurse's training, and feels that she must be almost self-supporting while doing it, the affiliated course offers particular advantages.

The Riverside Community Hospital has at present eighty beds, caring for surgical, medical, and obstetrical patients. The building is new and the equipment up to date. In addition to the training received at the Riverside Hospital, the student receives three months' training at the Children's Hospital, Los Angeles, and six weeks in the metabolic clinic at La Jolla.

All student nurses when ill are cared for in the hospital without charge, and are treated by one of the staff physicians. Time lost through illness must be made up by prolonging the course.

Requirements.—The requirements for taking the course are as follows:

1. Applicant must be between the ages of 18 and 36 years.
2. Recommendations as to character and general ability must be submitted.
3. A certificate of physical health (blank furnished by the hospital) must be presented. The student must have been vaccinated within two years of date of entrance.
4. A full high school course, or its equivalent in experience and education; the course should preferably include Algebra, Biology, Chemistry, and Home Economics.
5. The student must be accepted by the junior college before enrollment is completed with the hospital.

General plan.—Those desiring the course should plan to enter the hospital near the end of August, four weeks before the date fixed by the junior college for its opening. At the end of this four weeks' period, the students are divided into two groups, A

and B. Group A reports to the college for six weeks' work, and group B remains for hospital duty for the same length of time. At the end of this period, the groups exchange places. This is done three times during the year, so that 18 weeks a year are spent at the college, and 32 weeks at the hospital. While at college, the student spends no time in the hospital wards except at her own request.

All school vacations are spent on duty at the hospital except for a two weeks' vacation granted yearly. Any time off, taken in addition to this, must be made up.

Expenses.—The expenses of taking the course are arranged as follows:

1. The student furnishes her own uniforms. Details concerning the making of the uniforms are furnished by the hospital authorities, upon request.

2. The student needs to allow about \$50 per year for books and college fees. There is no tuition charge, but co-ordination and laboratory fees are required as for other co-operative students.

3. The student receives board and room and a laundry allowance during the entire course.

Home making and hotel management.—Hotel and cafeteria management are new professions open to women, and with the co-operation of the leading organizations in Riverside the junior college has arranged to give training along these lines. The course is of value, also, to girls looking forward to managing homes of their own, and it is to be emphasized that the great majority of women ultimately take over such a responsibility, whether or not they carry on also a gainful occupation. All girls who, in any capacity or in any degree, are to share the activities of home making should have training in home economics.

The co-operative course gives this education and also leads to many interesting vocations for women such as that of tea-room manager, dress designer, budget adviser, hotel manager, caterer, dietitian, college dormitory assistant, director of women's club, welfare worker, laundry manager, landscape gardener, etc. Properly qualified girls will be taken into the staffs of the Glenwood Mission Inn and Mapes' Riverside Cafeteria and given all-round experience in all departments. Supplementary work with other employers will be available when found advisable for the best training.

Outline of courses of study open to co-operative students.—Following are outlined curricula for the different co-operative courses. The number of credits for each course is calculated on the basis of one-half unit for one lecture or recitation or one three-hour shop, drawing, or laboratory exercise each week for one co-operative period (six weeks) :

ENGINEERING COURSE

	Units
Accounting	3
Business Organization	3
*Chemistry	12
Commercial Law	1½
*Drawing	12
Economics	9
*Elective	10
Electricity	6
Engineering Calculation	18
English	12
*Materials	3
*Mechanics	3
Orientation	12
Physical Education	6
*Physics	21
Surveying	12

HOME MAKING AND HOTEL MANAGEMENT COURSE

	Units
*Accounting	6
Art	3
Business Organization	3
*Chemistry	6
Design and Art Appreciation	3
Drawing (Mechanical)	3
*Economics	9
*Elective	12
English	12
Home Economics (Foods, clothing, house plan- ning and furnishing)	18
*Human Body	9
Hygiene	1½
Music Appreciation	3
Orientation	12
Psychology	6
Physical Education	6
*Science	12

LIBRARY COURSE

	Units
Drawing	6
*Economics	9
*Education	9
Elective	10
English	12
French	12
Greek Life and Thought	6
*History	18
Music	6
Orientation	12
Physical Education	6
Printing	6
Psychology	6
Science	12

No student is expected to take all the subjects listed in these courses; with the advice of the co-ordinator the amount of work done in those marked with an asterisk (*) will be determined in relation to the line of work followed by the student. In general, about nine units should be earned each quarter, which implies a total of approximately 60 hours of work (class, laboratory, and study combined) each week.

NURSES' TRAINING COURSE

	Units
Bacteriology	3
Chemistry (Inorganic)	6
Chemistry (Organic)	4½
Chemistry (Physiological)	4½
Elective	7
English	9
Foods	6
History of Nursing	1½
Hygiene	1½
Human Body	9
Orientation	6
Physical Education	4½
Psychology (General)	4½
Psychology (Abnormal)	3½
Public Sanitation	1½
Total	72

In addition to the foregoing junior college courses, there are numerous strictly nursing subjects which are given at the hospital by special instructors. For this work the college allows 24 units.

Importance of the co-ordinator in a co-operative plan.—In concluding this chapter reference should be made to the most important factor in the execution of a co-operative plan, namely, the co-ordinator, concerning whom J. W. Roe says:

The co-operative plan has not been uniformly successful. Its success has hinged largely on the quality of the co-ordination between the work done in the college and that in the industries. Where this has been well handled the plan has worked well; where it has been slighted, failure has resulted. At Cincinnati, Dean Schneider at first acted as co-ordinator himself, a fact which in no small way accounts for the success there.

A co-ordinator should be a man of high caliber, a good executive, a keen judge of men, thoroughly familiar with both college and industrial conditions. In setting up the work he secures not only the consent, but the active interest and co-operation of the owner or manager, and sells the idea "down the line" to the various foremen and superintendents with whom the student is to have direct contact. He goes over the work in detail and prepares a syllabus of questions which are given the student when he takes up the work. These cover every possible phase of the business, the machine he works on, its cost, power, maintenance, tools required, etc.; the workman, and the organization of which he is a part; the material he works on, where it comes from and what becomes of it, how it is bought, how it is routed into the plant, how sold; the nature of the business, whether seasonal or otherwise, how financed, how advertised, etc. These questions, most of which would not naturally occur to a student, are a guide in making regular reports, which go both to the co-ordinator and to the manager, or to one he may designate. The knowledge that these reports will be read by both of these has a very stimulating effect. The manufacturer has a good line on how the student is getting on in his work, and if the student shows marked ability, knowledge of it is sure to reach the right man.

The co-ordinator not only visits the student and follows up his outside work, but holds regular conferences or classes at which the co-operating students exchange experiences, report to the co-ordinator, and "tie up" their outside work with their college work. These conferences enable each student to get some benefit from the work the others are doing as well as from his own. Work so supervised and directed will mean much more to a boy than merely turning him loose in a distant plant for the summer.¹

¹ Joseph W. Roe, "Co-operative Plan of Engineering Education," *Management Engineering*, Vol. II, No. 5 (May 1922).

CHAPTER XI

THE 6-4-4 PLAN OF EDUCATIONAL REORGANIZATION

WILLIAM F. EWING*

Different types of school organization.—During the past two decades there has been much discussion concerning the re-grouping of the different grades in the public school system of this country. Until the advent of the junior high school as a separate unit, the elementary school was made up of grades one to eight, inclusive, and the high school had grades nine, ten, eleven, and twelve. This plan is generally known as the 8-4 plan. In cities having intermediate schools or junior high schools, the grouping is usually: elementary school grades, one to six; junior high school, grades seven, eight, and nine; senior high school, grades ten, eleven, and twelve. This plan may be designated as the 6-3-3 plan. In a comparatively small number of schools, usually in rural consolidated districts, there is what is known as the 6-6 plan, i.e., six years elementary and six years junior and senior high school combined.

The 6-3-3-2 and the 8-4-2 plans.—A few California cities have adopted still another combination: elementary school, grades one to six; junior high school, grades seven, eight, and nine; senior high school, grades ten, eleven, and twelve; junior college, grades thirteen and fourteen. This is known as the 6-3-3-2 plan. This plan prevails where public junior colleges have been established in connection with existing high schools, in the cities. In the rural districts, where junior colleges have been established in connection with a union high school district, the organization customarily followed is that of the 8-4-2 plan.

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The 6-4-4 plan.—An entirely different plan, from any of those mentioned above, has been advocated by well-known educators in different parts of the country. They believe that the best form of organization is that known as the 6-4-4 plan, i.e., six elementary grades, four junior high school grades, and four senior high school and junior college grades. Following is a statement of Dr. Leonard V. Koos, the educator who has carried on the most extensive researches regarding the junior college movement:

Early in a consideration of the problem one is impressed with the impracticability of a plan or organization which provides for a three unit secondary school with three years in each of the two lower units and two years in the highest. Certainly this would give us superfluous problems of articulation and administration. A much less unwieldy procedure seems to be the division of the full eight-year secondary school period into two units of four years each, and their administration after a manner similar to that being followed with respect to our present day junior and senior high schools.¹

Dr. Frederick Eby, of the University of Texas, who is another advocate of the 6-4-4 plan, says:

The degree to which the high school and junior college are administered together as one institution varies from place to place and in many details. The general drift appears to be toward more consolidation. The reasons for the complete isolation of the junior college years from the high school are growing weaker and weaker and less important year by year. Economy of expenditure, of administering, and of the organization of the curricula are gradually forcing unification.

There is a growing conviction that the junior college of the future will combine the two upper years of the present high school organization and the two lower years of the standard college into a new single organization. This unit has the endorsement of all the leading authorities on the subjects.²

¹ L. V. Koos, *The American Secondary School*, Ginn & Co., 1927, pp. 244.

² Frederick Eby, "Shall We Have a System of Junior Colleges in Texas?" *Texas Outlook*, January 1927.

Other educators who favor the 6-4-4 plan of organization are: Professor Harry L. Miller, of the University of Wisconsin, whose views are set forth in an article in the *Wisconsin Journal of Education*, for March 1922, pages 47-51, entitled, "The Junior College and Secondary Education," and Professor William Martin Proctor, of Stanford University, whose article on "The Junior College and Educational Reorganization," appeared in *The Educational Review*, May 1923, Vol. LXV, pp. 275-280.

The Pasadena reorganization.—So far as the writer knows, no city has yet completely established a 6-4-4 plan of organization. Such an organization was effected in Hibbing, Minnesota, but was discontinued after one year on account of factors other than those having to do with its educational validity. In Pasadena, California, a city of some 75,000 people, the Board of Education has been reorganizing its public schools, during the past four years, with a view to the ultimate establishment of the 6-4-4 plan. Since the Pasadena situation has attracted wide attention and has been favorably commented on by educators who have studied its details, it should prove of interest to have the present status of the experiment described.

The plan proposed.—In the spring of 1923, the Pasadena public school system had some twelve elementary schools, either grades one to six or grades one to eight; one junior high school, grades seven, eight, and nine; and one senior high school, grades nine, ten, eleven, and twelve. On account of the overcrowded condition of the colleges and the consequent difficulties encountered by high school graduates in securing admission to higher institutions, the problem of better college facilities became acute. The principal of the senior high school, at that time, became fully convinced that the city of Pasadena should provide college courses for all of its high school graduates who found it either necessary or desirable to secure a year or two of

college work at home. In order to make a careful study of the junior college movement and to become familiar with its more vital problems, he spent the summer of 1923 at the University of California. There he received much assistance and encouragement. Returning to Pasadena at the close of the summer session, he presented to the City Superintendent of Schools and subsequently to the Pasadena Board of Education a plan for the reorganization of the Pasadena public schools. The following is a quotation from the original plan as outlined to the Pasadena Board of Education :

In a system of junior high schools, by the fall of 1924, Pasadena could easily provide accommodations for grades seven, eight, and nine, thus relieving Pasadena High School of all ninth grade pupils. Then the Freshman college classes could be accommodated at the high school plant. By the fall of 1925 provisions could be made for both Freshman and Sophomore college classes. By 1926 the junior high schools should have ample facilities in rooms and equipment, to accommodate all pupils in grades seven, eight, nine, and ten. Pasadena High School would then be relieved enough to furnish good training for students in grades eleven, twelve, thirteen, and fourteen. It would then become in fact, a four-year junior college.

The plan inaugurated.—The plan, as suggested, was promptly endorsed by the Superintendent of Schools and by the members of the Board of Education. The principal later began to unfold the plan to the teachers and students of the Pasadena High School, and finally to the citizens of the high school district. Much to his surprise and disappointment he found many critics of the proposed plan and much opposition to it. The chief opponents were: (1) High school teachers, who feared that the elimination of grades nine and ten would eventually require their transfer to the junior high school; (2) Leaders among the high school students, who asserted that the high school student body affairs would be controlled by the older and more experienced college students; (3) High school alumni, who predicted

that athletes would lose influence and importance in the reorganization of the high school; (4) Alumni of neighboring, well-established colleges, who protested against the encroachment of the junior college (these well-meaning people argued that Pasadena was in the midst of good colleges¹ and hence there was no need for a junior college); (5) Parents who were financially able to send their sons and daughters to existing colleges at a distance; (6) Retired residents of the city, living on a fixed income, who anticipated an increase in taxes, and on this account were opposed to any extension of the school system; (7) Prominent college men and women living in Pasadena, who regarded the plan as a very doubtful educational experiment; (8) A majority of the voters, who were unfamiliar with the trends of modern educational organization, and were therefore indifferent or openly hostile to the proposed 6-4-4 plan.

Such an array of opponents furnished a real challenge to the most enthusiastic advocates of the desired reorganization. However, by a carefully organized publicity program, including a series of conferences, addresses, and debates, extending over a period of about six months, the opponents of the plan were reduced to a small minority. On March 28, 1924, by an overwhelming majority, the citizens of the Pasadena City High School District voted to establish a junior college.

Summary of events in junior college project.—Some of the outstanding facts in the history and development of the Pasadena Junior College are: (1) June 17, 1924, the Pasadena Board of Education organizes as the Pasadena City Junior College Board. College officers and faculty are elected for the ensuing year. Courses of study for Freshmen only are adopted.

¹ The following four-year colleges are within thirty miles of Pasadena: (1) California Christian College; (2) Occidental College; (3) Pomona College; (4) University of California at Los Angeles; (5) University of Southern California; (6) Whittier College.

(2) September 15, 1924, Pasadena Junior College opens with an initial enrollment of about two hundred students. By the end of the school year a total of 267 regular students had enrolled. (3) September 14, 1925, both Freshman and Sophomore courses are offered at Pasadena Junior College; there has also been a marked increase in the number of students, shown in a total enrollment for the year of 500 regular, full-time students, and 318 part-time students. (4) June 18, 1926, 45 students receive diplomas. (5) September 13, 1926, the beginning of the third year, shows an increased student enthusiasm and community interest in the junior college. Total enrollment for the year 1926-1927 are 634 regular students, and 446 part-time adult students. (6) June 17, 1927, finds 62 graduates from the two-year course. Pasadena Junior College is now an established fact. It has received national as well as local recognition.

Present status of proposed reorganization.—What is the present status of the 6-4-4 plan, which was proposed for Pasadena in 1923? The city now has four junior high schools, grades seven, eight, nine; one senior technical high school; and one senior high school and junior college. All ninth-grade pupils were eliminated from the senior high school by the fall of 1925. During the past two years there has been a slight decrease in tenth-grade students, as shown by Table V.

The opening of a new technical senior high school in the fall of 1926, and the crowded condition of the junior high schools, has made necessary a postponement of the time when the tenth grade of the senior high school can be transferred to the junior high schools. Within the next two years, however, all tenth-grade students can be accommodated in the junior high schools. This will enable the Board of Education to make Pasadena High School and Junior College a four-year institution, with grades eleven, twelve, thirteen, and fourteen. By the fall of

1929, therefore, the 6-4-4 plan should be in complete operation at Pasadena.

TABLE V

ENROLLMENT OF STUDENTS IN PASADENA HIGH SCHOOL AND JUNIOR COLLEGE, BY SEMESTERS, 1925-1927, INCLUSIVE

School Grade	Fall, 1925	Spring, 1926	Fall, 1926	Spring, 1927
Tenth	999	1,325	983	1,184
Eleventh	748	705	819	772
Twelfth	651	593	636	640
Post-graduate	31	24	38	35
Thirteenth	316	280	392	332
Fourteenth	123	96	204	193
Total	2,868	3,023	3,072	3,156

Since the addition of the tenth grade to the junior high schools is largely a matter of increased facilities, and does not involve fundamental changes in the objectives of curricula of the junior high school unit, the discussion will be shifted to the senior high school and junior college unit. Because students of education and laymen generally will be more interested in an actual situation than in a theoretical discussion, the writer will proceed to describe the institution with which he is most familiar, the Pasadena Senior High School and Junior College.

Internal organization of high school and junior college.

—At present the above-named institution has grades ten, eleven, twelve, thirteen, and fourteen. In both high school and college divisions there are the usual class organizations, each under the supervision of a committee of faculty advisers. The high school student body has a commission form of government. Seven student commissioners are elected by the high school students to conduct their various activities. They are: (1) Girl's Welfare; (2) Boy's Welfare; (3) Finance; (4) Publications; (5) Debating; (6) Athletics; (7) Entertainment. The junior college

student body has a democratic form of government. The officers elected by the members of the junior college student body are: President, Vice-President, Secretary of Publicity, Secretary of Athletics, Secretary of Activities, Secretary of Men, Secretary of Women, Secretary of Records and Finance. The president is the presiding officer of the junior college cabinet.

Student activities.—In extra-curricular activities high school and junior college students have separate organizations. They have separate assemblies.

Co-operation between groups.—At athletic contests, however, many courtesies have been exchanged between high school and junior college student bodies. For example, college students have helped to coach high school teams. They have acted as officials in high school contests. They have attended high school games, thereby giving both financial and moral support. Both groups have provided reduced admission charges to students having membership cards in either group.

Student clubs.—During 1926–1927 there were about forty high school clubs. Junior college students had about fifteen such groups. There were no clubs composed of both junior college and high school students. However, in the annual school operetta, students from both divisions participated. Fraternities and sororities are forbidden by state law. From the beginning of the junior college, the high school and college students have had separate scholarship societies.

Publications.—Up to the fall of 1926, high school and college publications had been financed and published by the joint efforts of high school and college students. During 1926–1927 separate management and support were established, and now each unit publishes its own weekly paper and annual.

Student body fees.—High school student body fees are \$2.50 per year. Payment of dues is optional. Last year nearly 70 per

cent of the high school students had membership cards. Junior college dues are \$7.50 per year. Tradition and strong student opinion secured a 100 per cent membership last year.

Teaching staff.—First in importance concerning the teaching staff is the matter of qualifications. Teachers of the academic subjects are required to have advanced degrees in the subjects taught. Exception to this rule is made only in the case of modern language teachers, where a year or more of resident study abroad may be considered the equivalent in training of an advanced academic degree. Candidates applying for positions in high school or college must meet minimum collegiate standards. College teachers are usually assigned one or more eleventh- or twelfth-grade classes.

Twenty hours of instruction per week is the normal teaching load in the high school, and in the college department twelve hours. Three hours of college instruction is considered the equivalent of five hours of high school teaching. Thus, the teacher who gives nine hours of college instruction and five hours of high school instruction has a normal teaching load. Junior college and high school teachers are employed on the same salary schedule.

Cost of instruction and financial arrangements.—During the past three years, the average total annual cost per high school student in average daily attendance has been \$272. The cost per junior college student has been, for the same period, \$275. Where the two groups are instructed in the same plant and by the same teachers, on a single salary schedule, there is apparently very little difference in average cost per student between the junior college student and the high school student.

The junior college district pays an annual rental to the high school district for the use of the high school plant and equipment. This rental is determined by the relative number of high school and junior college students enrolled. Rentals paid under

this arrangement have been as follows: 1924-1925, \$15,000; 1925-1926, \$25,000; 1926-1927, \$35,000.

Joint use of buildings.—Laboratories, shops, gymnasiums, plunge, playfields, auditorium, cafeteria, and library are used by high school and junior college students jointly. During 1926-1927, the school library was open to all students from 7:30 A.M. to 6:00 P.M., on five days of the week, and on Saturdays from 7:30 A.M. to 11:30 A.M. Junior college students had additional service from 6:00 to 9:00 P.M. Mondays, Tuesdays, Wednesdays, and Thursdays.

Since the junior college students are assigned to the library for study during their free periods at school, the Board of Education is now preparing a large reserve-book reading-room, to be used exclusively by the junior college students.

Faculty supervision.—Heads of departments supervise instruction in both high school and college classes. The administration staff (dean of girls, director of attendance, dean of the junior college, recorder, assistant principal, and principal) serves both high school and college divisions. Heads of departments and the administration staff form the principal's council, which is the legislative body of the faculty. This council meets regularly once a month. The administration staff, as a separate body, meets once a week. It functions as an executive and advisory committee. Twice a month the administration staff meets with the high school commissioners, and twice a month with the junior college cabinet. Occasionally cabinet officers and commissioners hold a joint meeting with the members of the administrative staff. At these joint meetings problems of mutual interest are discussed.

Curricula.—Four types of curricula are offered. (a) *The Diploma Curriculum* which is open only to high school graduates residing in the Pasadena High School District. (b) *The*

Certificate Curriculum which leads to Junior standing in four-year colleges and universities. It is open to recommended high school graduates only. (c) *The Vocational Curriculum* which is open alike to recommended and non-recommended high school graduates. Non-high school graduates past the age of 18 may be permitted to enroll in this curriculum. (d) *A Course for Nurses*. Under a working agreement with the Pasadena Hospital Training School the junior college gives semester courses in Physiology and Anatomy, Bacteriology, Chemistry, and Physical Education to nurses in training at that institution. The average number of students in these courses is approximately 25. The course for nurses seems to have been satisfactory to all concerned.

The percentage of recommended students in the college is gradually increasing. In the fall of 1924, 48 per cent of all junior college students were fully recommended. In the fall of 1925, 50 per cent were fully recommended. In the fall of 1926, 52 per cent were fully recommended.

Requirements for completion of the Diploma Curriculum.—The California State Board of Education authorizes the issuance of diplomas to those who have completed 64 hours of junior college studies, which shall include the following: Subject A (English Composition) University of California—no credit; English, 6 hours; Physical Education, 4 hours; Social Science or Mathematics, 6 hours; and an arrangement of courses that will show 20 hours of work in one department.

Nearly all college students are enrolled in either the Certificate or Diploma Curriculum. Many students in the latter group desire to transfer to the Certificate Courses.

The basis of transfer may be noted from the following regulations:

a) Non-recommended students, that is, those who have less than 15 recommended units of credit upon graduating from

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high school, may make up deficiencies by good work done in diploma classes. Three hours of college work with a grade of A or B will be considered equivalent to one-half unit of credit of high school work. The grade of C may be accepted on recommendation of the instructor and approval of the Administration Staff.

b) In any case the student must have at least 12 recommended units of credit at the beginning of the semester, and must have attained as many grade points as there are hour points in his schedule. Only a small number of non-recommended students have so far been successful in meeting the standards for transfer.

Requirements for the completion of the Certificate Curriculum.—

a) *General.*—At least 60 units of college work, including Physical Education (2 units) and subject A (no credit).

b) *Foreign Language.*—At least 15 units in not more than two languages. Each year of high school work in a foreign language is counted in satisfaction of 3 units of this requirement.

c) *Mathematics.*—Elementary Algebra and Geometry. Instruction in these subjects is given only in the high school.

d) *Natural Sciences.*—At least 12 units chosen from the following list:

- High School Physics (3A)*, 3 units (1 high school credit).
- High School Chemistry (3B)*, 3 units (1 high school credit).
- Astronomy, 1, 2A-2B, 4-2B*, 5, 11.
- Bacteriology, 1*.
- Botany, 1A, 2A*-2B*.
- Chemistry, 1A*-1B*, 5*, 6A*-6B*, 8.
- Geology, 1A, 1B, 1C, 2C, 6*.
- Physics, 2A-2B, 3A-3B*, or 3C*-3D*.
- Physiology, 1*, 2*.
- Zoology, 1A*-1B*, 10.

The student must include in the courses taken in satisfaction of the requirement in natural science at least one course in laboratory science. Any of the courses marked with an asterisk in the above list will be accepted in fulfilment of this requirement. Courses with but one unit of laboratory science are not accepted as fulfilling this requirement and are not marked above, unless they have as prerequisite a course that also requires one unit of laboratory work.

e) Additional.—A year course (of at least 6 units) in each of three of the following groups:

1. English, public speaking.
2. Foreign language (additional to B). This may be satisfied in whole or in part in the high school, provided the language be Latin.
3. Mathematics: Plane trigonometry, plane analytic geometry, introduction to calculus. This may be satisfied partly in the high school.
4. History, economics, political science.
5. Philosophy.

The majority of junior college graduates seem to continue their college education. In the pioneer class of 45 students, 37 last year attended four-year institutions. The distribution was as follows:

University of California at Los Angeles, 13.
Pomona College, 6.
Stanford University, 5.
University of California at Berkeley, 4.
University of Southern California, 2.
Occidental College, 2.
Whittier College, 2.
Redlands University, 1.
University of Washington, 1.
University of Toronto, 1.

Conclusions.—The writer is convinced that the junior college idea is educationally sound. From his experience with the Pasadena High School and Junior College, in its process of

transition from the 6-3-3-2 plan to the 6-4-4 plan, he is satisfied that the latter plan, when fully accomplished will be the more satisfactory.

High school principals and other school officials, no matter how enthusiastic they may be, should not attempt to reorganize their respective schools on the basis outlined above until they have made a thorough study of all the problems connected therewith. Before undertaking such a task they should be able to show: (1) a real need; (2) prospects for adequate buildings and equipment; (3) assurance of necessary financial background; (4) the prospect that adequate standards of a collegiate character can be sustained by faculty and students.

The success of the Pasadena Junior College may be attributed to several factors, among which are: (1) large classes of high school graduates, many of whom although of college capacity cannot afford to go away from home; (2) a strong high school and junior college faculty, working on a single salary schedule, set at a fairly high rate of compensation; (3) adequate financial support, represented by the following items:

Assessed valuation of high school and junior college district	
in 1926	\$141,364,745
Property:	
Site (40 acres) valuation.....	\$ 972,000
Buildings (17)	788,635
Laboratory apparatus	71,696
Other apparatus	2,507
Furniture	31,291
Other equipment	18,500
Library books (17,163 volumes).....	40,326
Supplies on hand.....	3,000
Total	\$1,927,955

While, as stated above, the Pasadena High School and Junior College is still in the transition stage, and has not yet been able to demonstrate completely the possibilities of a unified four-

year institution, it is significant that no obstacles have yet arisen to deter its sponsors from going forward to the completion of the task which they set out to accomplish. Just how the institution will be administered when the 6-4-4 plan is finally in complete operation, is not now entirely clear. Whether there will be high school graduation as at present, whether present distinctions in disciplinary handling of high school and junior college students will continue, whether there will be separate social, athletic, and student publications, as well as student body organizations, cannot now be foreseen. But there will certainly be no greater difficulties in the way of administering the combined eleventh, twelfth, thirteenth, and fourteenth grades, in a four-year institution, than are now encountered by the colleges and universities in handling in one organization their upper division and lower division student groups.

The advantages will be in the line of economy in financial administration, lowered overhead expense, elimination of overlapping in content of courses, better teaching for the last two high school years, greater holding power through minimizing the break between high school and college, and a better chance to develop student and institutional morale. There is good reason to believe that when this type of institution is fully developed it will become the modern substitute for the standard four-year American cultural college—the ideal training institution for later adolescence.

CHAPTER XII

THE JUNIOR COLLEGE TRANSFER IN THE UNIVERSITY

WALTER CROSBY EELLS*

Is the junior college fulfilling its preparatory function?—All writers on the junior college agree that one of its important basic functions is that of preparation of students for advanced work in the university. It is not necessary to discuss here the relative importance of this function in comparison with other purposes which have been set forth as legitimate aims to be accomplished by this new form of educational organization. It is recognized by all authorities as a function of fundamental importance, and it has the advantage that rather definite, quantitative evidence ought to be available regarding its successful accomplishment.

Kind of evidence required.—But any such evidence must be accepted and treated with caution. The junior college is too new an institution and therefore not sufficiently standardized for its product to be considered necessarily constant from year to year. Nor can it be assumed that private and public junior colleges, including those connected with high schools, those with normal schools, and those organized in independent districts, can all be treated alike in any evaluation of their product. The fact of “individual differences” may be quite as real in dealing with junior colleges as the educational psychologists have found it to be with individual students.

But the junior college movement is old enough now for it to begin to be possible to make moderately reliable studies of the

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success of junior college graduates in university work when measured against other comparable groups. A careful examination of some of the meager results which have already been published along this line shows that they suffer because comparisons have been made between groups that are not properly comparable, e.g., junior college entrants with Freshman entrants, or with all the students in the university, or junior college entrants at several institutions with advanced students at a single institution, and the like.¹ In some cases students with one semester or less of junior college training are compared, instead of using those who have completed the two-year course.

Method of this study.—It is proposed in this chapter to report the results of a detailed comparative study of the records of over twelve hundred students in the “upper division” of Stanford University. These will be divided into groups according to whether they received their Freshman and Sophomore training at junior colleges, at standard four-year colleges, at “foreign” colleges, at normal schools, or in the first two years or “lower division” of Stanford University. Numerous significant comparisons of the ability and accomplishment of these groups are possible, each of which throws some light on their relative desirability and success as university students and forms a basis for a partial evaluation of the junior college product. Unfortunately the number of cases is as yet too small for the junior college group (80) to make conclusions entirely reliable. The results should be interpreted as suggestive rather than conclusive, especially in view of the fact that these students came from young institutions during their formative years. They show tendencies rather than establishing definite facts.

¹ For examples of several comparisons of this kind see L. V. Koos, *The Junior College Movement*, pp. 92-95, and F. W. Thomas, “A Study of the Functions of the Public Junior College” (Ph.D. Thesis, Stanford University, 1926), pp. 65-71.

Definitions.—In order that there may be no misunderstandings in the comparisons to be made, explicit definitions are given of the groups to be compared.

a) By *Students entering directly from high schools* is meant all students in the upper division of Stanford University in the autumn quarter, 1925–1926, who entered the university directly from high school and for whom Thorndike test scores are available. This group comprises 587 students. For brevity it will be referred to as the *Native Stanford* group.

b) By *Students with advanced standing* is meant all students entering Stanford University as undergraduates from September 1923 to June 1926, with 87 or more quarter-units of advanced credit, and for whom Thorndike test scores are available. This group comprises 644 students.

c) *Junior Colleges* is used to refer to colleges giving courses of two years only beyond high school graduation. About 90 per cent of the students studied in this group come from public California junior colleges not connected with teachers colleges.

d) *Normal Schools* is used to refer to normal schools and teachers colleges, including those which have junior college departments.

e) *Standard Colleges* is used to refer to recognized colleges and universities whose four-year courses beyond high school graduation lead to the Bachelor's degree.

f) *Foreign Colleges* is used to refer to all institutions of collegiate rank outside the United States and its territories.

g) *Grade-Point Ratio* is computed by dividing total number of grade points secured by total number of hours registered; three grade points being given for each hour of "A" grade, two for "B," one for "C," and none for "D" or minus "(—)."

The data available for study in the different groups as thus defined are summarized in Table VI.

TABLE VI

CLASSIFICATION OF UPPER DIVISION STUDENTS AT STANFORD UNIVERSITY
BY SEX AND SOURCE OF PREVIOUS EDUCATION

	Total	Men	Women
<i>Native Stanford</i>	587	498	89
<i>Advanced Standing</i>	644	465	179
Standard Colleges	390	290	100
Junior Colleges	80	60	20
Normal Schools	142	83	59
Foreign Colleges	32	32	0

In all comparisons which follow, the two sexes are treated separately, since the conditions of their entrance to the University and their subsequent treatment in the University are essentially different in many respects.

Three general comparisons will be made, two dealing with the relative ability of the different groups, and one with their relative accomplishment of university work.

I. Comparisons of ability as shown by Thorndike Intelligence Test scores.—The Thorndike Intelligence Examination for High School Graduates has been required at or before entrance for all undergraduate students at Stanford University since 1921. Table VII (p. 174) summarizes the average Thorndike Test scores, their variability, and their reliability for the different groups involved in this study.

These facts are shown more vividly in the accompanying figure (Chart I, p. 175), where the heavy central horizontal line indicates the average score for each group, and the shaded area indicates the limits included within plus or minus one probable error of the mean. This figure shows at a glance the relative standing of the different groups in ability as measured by their average Thorndike scores, as well as the reliability of this standing.

It is seen that all of the Advanced Standing groups except the Foreign one (where the language handicap makes Thorndike Test scores not properly comparable) rank distinctly higher in intelligence test score than the Native Stanford group, in the case both of men and women. Comparison of the different Advanced Standing groups shows that men from the junior colleges rank distinctly higher than those from standard colleges

TABLE VII
AVERAGE THORNDIKE TEST SCORES FOR NATIVE STANFORD AND
ADVANCED STANDING GROUPS

	Number	Mean Test Score	Standard Deviation	Probable Error of Mean
MEN				
<i>Native Stanford</i>	492	72.3	14.9	0.45
<i>Advanced Standing (Total)</i> ...	465	78.6	18.1	0.6
<i>Advanced Standing (Foreign Omitted)</i>	433	80.3	16.5	0.5
Standard Colleges	290	79.8	16.5	0.7
Junior Colleges	60	81.8	16.0	1.4
Normal Schools	83	81.0	16.7	1.2
Foreign Colleges	32	55.1	22.0	2.6
WOMEN				
<i>Native Stanford</i>	87	69.1	13.7	1.0
<i>Advanced Standing</i>	179	78.2	13.9	0.7
Standard Colleges	100	78.4	12.9	0.9
Junior Colleges	20	76.9	16.2	2.5
Normal Schools	59	78.3	14.8	1.3

and somewhat higher than those from normal schools; this is not true for Junior College women, but on account of their small number (20) and the resulting large probable error, little significance can be attached to this fact. Their average test score, however, is significantly higher than that of the Native Stanford women. The Junior College women show the greatest

variability among the women's groups. The variability for Junior College men and women is practically the same. This variability may be shown more in detail if the members of the different groups are classified into three grades of ability.

CHART I

COMPARISON OF THORNDIKE TEST SCORES, BY SEXES, FOR
ADVANCED STANDING AND NATIVE STANFORD GROUPS

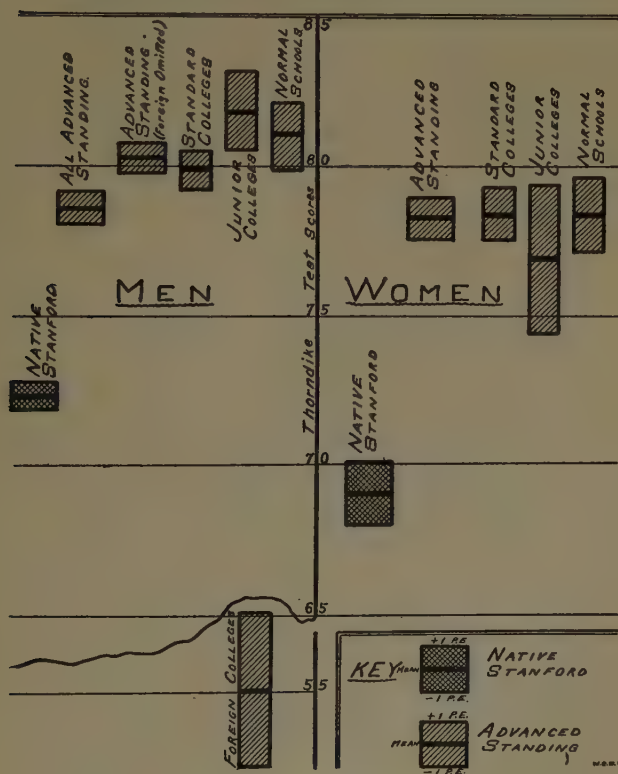


Table VIII (p. 176) lists the proportions of students from the various groups whose scores fall in three subdivisions of

the test-score range, namely: high scores (90-135), medium scores (50-89), and low scores (0-49).

TABLE VIII

PERCENTAGE OF STUDENTS IN DIFFERENT GROUPS, HAVING LOW, MEDIUM, AND HIGH THORNDIKE TEST SCORES

	Number	Percentage Low 0-49	Percentage Medium 50-89	Percentage High 90-135
MEN				
<i>Native Stanford</i>	492	7	81	12
<i>Advanced Standing</i>	465	6	65	29
Standard Colleges	290	3	67	30
Junior Colleges	60	2	63	35
Normal Schools	83	2	68	30
Foreign Colleges	32	44	50	6
WOMEN				
<i>Native Stanford</i>	87	3	92	5
<i>Advanced Standing</i>	179	1	77	22
Standard Colleges	100	0	80	20
Junior Colleges	20	5	70	25
Normal Schools	59	2	74	24

From this table it appears that there have been two and one-half times as many men students with high scores (90-135) in the Advanced Standing group as in the Native Stanford group, and over four times as many women students. The superiority of the students from junior colleges in the matter of high scores, even in comparison with other students with advanced standing, is strikingly evident in this table. For both sexes they outrank all other groups. The Junior College men have three times as large a proportion of students with high scores as the Native Stanford men; the Junior College women, although small in number, have five times as large a proportion of high scores as the group of Native Stanford women.

Comparability of groups as regards Thorndike Test scores.—When comparisons are made between Junior College entrants and Native Stanford groups, in the tables and figure which have been given, the objection may be raised that the groups are not properly comparable since the Native Stanford group took the Thorndike Test on an average two years earlier in their educational development than the Junior College or any of the other Advanced Standing groups. Even if this were a valid objection, it would not apply at all to comparisons of the Junior College group with the other Advanced Standing groups, all of whom took the test at approximately the same stage in their educational history. However, several studies which have been made at Stanford University, the details of which need not be given here, show little evidence of any marked increase in Thorndike Test scores for the same individuals after an interval of two years which can be definitely credited to increased maturity.¹ Accordingly the comparison of Junior College and Native Stanford groups is probably also a fair one, the constant error, if present, being considerably smaller than the difference found.

II. Comparisons of ability as shown by previous academic record.—Instead of Thorndike test scores it is possible to use actual previous academic records of students as a measure of ability. This method of comparison, although it involves some difficulties, will be used in this section.

Not only systems of grading, but possibly standards of grading, are so variable that it is difficult to secure a single valid measure of academic accomplishment to serve as a basis of comparison of ability of the different groups. Thus of the institutions from which students have transferred with advanced standing to Stanford University, approximately 65 per cent use

¹ See Walter C. Eells, "Upper Division Scholarship," *Stanford University Faculty Bulletin*, No. 8, May 21, 1927, p. 2.

a system of grading similar to Stanford's, i.e., with four grades above passing, represented by A, B, C, D, or equivalent symbols; 17 per cent use numerical systems on a basis of 100 as a maximum grade and with a passing grade varying from 50 to 75; while the remaining 18 per cent use a variety of systems varying from three to eight passing grades. The records of all students in the groups under consideration whose grades have been recorded in such diverse systems, have been evaluated in terms of the Stanford "grade-point ratio" as closely and fairly as possible. The method of equalization used need not be stated in detail, but it is the same as has been used in the Registrar's office for a number of years for evaluating the records of entering students. The evaluations for the Native Stanford group are based upon the record which they made during their first two years at Stanford as lower division students.

Table IX (p. 179) summarizes the average grade-point ratios, their variability, and their reliability for the different groups under consideration.

These facts are also exhibited graphically in Chart II (p. 180) where as before the men are shown on the left, the women on the right, and the limits covered by plus or minus one probable error of the mean are indicated by the shaded areas.

The different groups are seen to be located well apart from each other on the scale in Chart II and the ranges of variability are relatively small, so that considerable confidence may be placed in the reliability of placement of the different averages which are represented. The Native Stanford group, for each sex, is seen to be distinctly lower than the entire Advanced Standing group, or than any of its component parts.

It is clear that the Junior College students of both sexes are placed markedly higher than the other groups. It will be recalled that the Junior College men also ranked highest in ability as judged by Thorndike Test scores, although the difference

was not so marked. There can be no question that students with markedly better previous academic records have been entering Stanford from junior colleges and with somewhat better rec-

TABLE IX

PREVIOUS ACADEMIC ACHIEVEMENT OF ADVANCED STANDING AND
NATIVE STANFORD GROUPS

	Number	Mean Grade-Point Ratio	Standard Deviation	Probable Error of Mean
MEN				
<i>Native Stanford</i>	478	1.49	0.47	0.015
<i>Advanced Standing</i>	448	1.64	0.52	0.02
Standard Colleges	283	1.55	0.53	0.02
Junior Colleges	60	1.85	0.49	0.04
Normal Schools	80	1.77	0.46	0.03
Foreign Colleges	25	1.54	0.45	0.06
WOMEN				
<i>Native Stanford</i>	86	1.70	0.50	0.04
<i>Advanced Standing</i>	168	1.95	0.52	0.03
Standard Colleges	96	1.87	0.48	0.03
Junior Colleges	19	2.19	0.57	0.08
Normal Schools	53	2.00	0.55	0.05

ords from normal schools, than from other colleges. But just what does "better previous academic record" imply? It may be interpreted to mean either of the following:

1. Students of distinctly better ability are entering Stanford from junior colleges and normal schools than from standard colleges or from its own lower division.

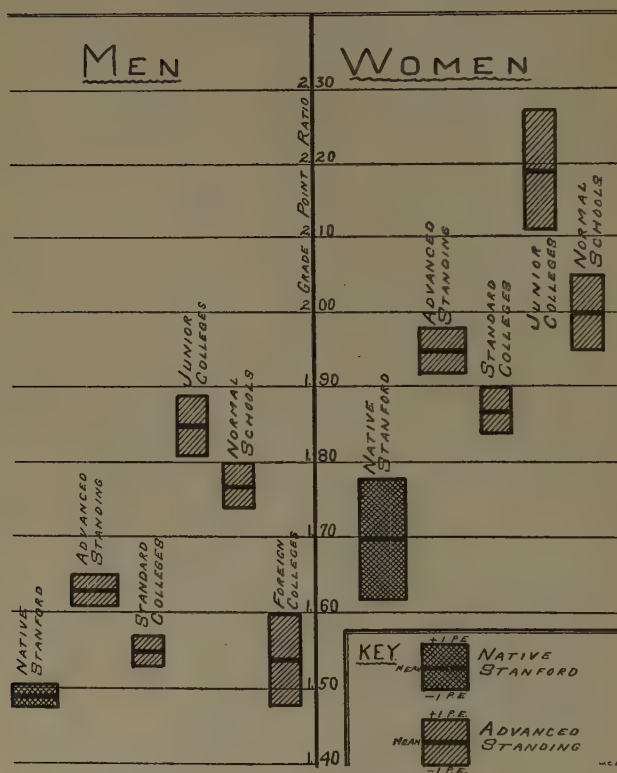
2. Standards of grading are least severe in the junior colleges, moderately severe in normal schools, still severer in the standard colleges, and most severe of all at Stanford.

The data of Table IX afford no absolute means of deciding which of these two interpretations is the true one, or whether a combination of both of them is nearer the truth. However,

the data already presented on ability as measured by Thorndike Test scores, taken in connection with the data here presented,

CHART II

COMPARISON OF GRADE-POINT RATIOS FOR PREVIOUS
ACADEMIC RECORD OF ADVANCED STANDING
AND NATIVE STANFORD GROUPS



seem to indicate that both interpretations are probably true, particularly as applied to students who have entered Stanford from junior colleges.

Thorndike Test scores resulting from tests of approximate

uniformity in administration, difficulty, and scoring, are probably a better method of measuring ability of groups from different classes of institutions than previous academic records, where methods and standards are both quite variable, resulting in variations which certainly cannot be entirely equalized by any statistical process. A careful consideration of the data resulting from the two methods of measuring ability seems to indicate the following as a reasonable conclusion to draw:

Stanford University has secured in the upper division, by transfer from other collegiate institutions of various types, a group of students who are distinctly superior in ability to those entering from her own lower division. Slightly better students among the transfers seem to have come from the junior colleges.

III. Comparisons of accomplishment as shown by university academic record.—Part III will deal with actual scholastic accomplishment of the various groups already discussed, as measured by the grades which they have secured in upper division work at Stanford University. The principal comparison to be made is based upon the record for the first year of upper division work for the academic year of entrance, or for that portion of it during which the student was in attendance.

The mean grade-point ratios of the different groups, their variability, and the reliability of the means are shown in Table X (p. 182).

The mean grade-point ratios and their probable errors are also exhibited graphically in Chart III (p. 183), the arrangement being the same as in the two previous figures.

From the data thus presented in tabular and graphic form it may be noted:

1. Advanced Standing men, as a whole, have a higher average than Native Stanford men, but the superiority (0.03) is not great nor highly reliable (note overlapping of probable errors).

2. Advanced Standing women have a slightly lower average than Native Stanford women, but the difference is even less than in the case of men (0.01, or 0.015 if the means are carried to the third decimal place), and of no practical significance (note the complete overlapping of probable errors).

3. Junior College men and women average slightly lower than the corresponding Native Stanford groups; but their probable errors are so large as to give slight reliability to the differences.

4. Junior College entrants, both men and women, are distinctly more variable than any of the other groups, as measured by the larger standard deviations of their grade-point ratios.

TABLE X

ACADEMIC ACHIEVEMENT OF DIFFERENT GROUPS AS MEASURED BY MEAN
GRADE-POINT RATIO FOR FIRST YEAR OF UPPER DIVISION
WORK AT STANFORD UNIVERSITY

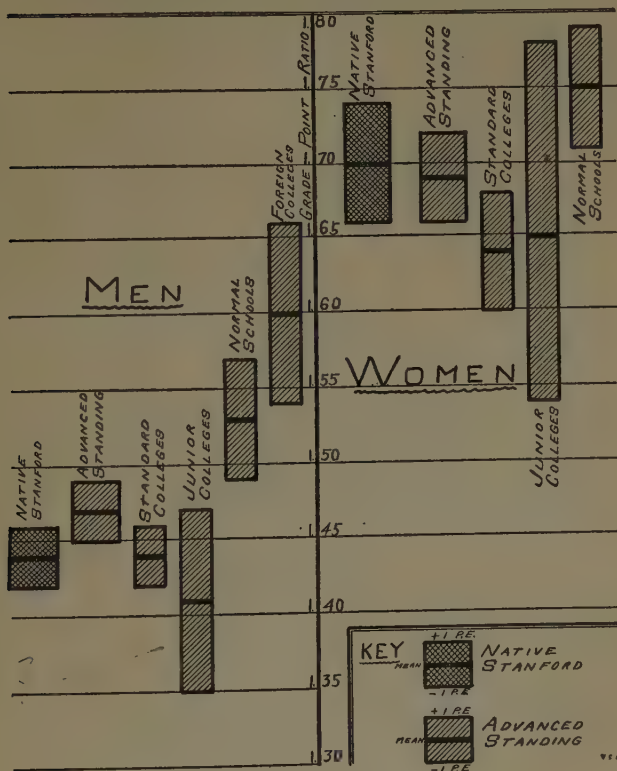
	Number	Mean Grade-Point Ratio	Standard Deviation	Probable Error of Mean
MEN				
<i>Native Stanford</i>	498	1.44	0.58	0.02
<i>Advanced Standing</i>	464	1.47	0.61	0.02
Standard Colleges	290	1.44	0.60	0.02
Junior Colleges	59	1.41	0.70	0.06
Normal Schools	83	1.53	0.57	0.04
Foreign Colleges	32	1.60	0.54	0.06
WOMEN				
<i>Native Stanford</i>	89	1.70	0.52	0.04
<i>Advanced Standing</i>	180	1.69	0.57	0.03
Standard Colleges	100	1.64	0.57	0.04
Junior Colleges	20	1.66	0.79	0.12
Normal Schools	60	1.75	0.51	0.04

The variability of the different groups, and especially that of the junior college groups, can better be shown by dividing grade-point ratios in three groups as follows:

Groups	Letter Rating	G.P.R. Range
High	A or B	2.00-3.00
Medium	C	1.00-1.99
Low	Below C	0.00-0.99

CHART III

COMPARISON OF STANFORD MEAN GRADE-POINT RATIOS FOR
FIRST ACADEMIC YEAR OF RESIDENCE OF ADVANCED
STANDING AND NATIVE STANFORD GROUPS



Distribution of Stanford grade-point ratios into these three classes for the different groups is shown in Table XI (p. 184).

In general a distinctly larger proportion of high-grade students of both sexes is found among the Advanced Standing groups than among Native Stanford students; also a larger proportion of below average students; with a correspondingly smaller proportion of students with medium grades. The Junior College students show the smallest proportion with medium grades of any of the groups, but rank high in proportion of superior grades. In all of these comparisons of accomplishment, however, it should be remembered that the records are for the first year of upper division residence only.

TABLE XI

PERCENTAGE OF STUDENTS IN DIFFERENT GROUPS HAVING LOW, MEDIUM, AND HIGH STANFORD GRADE-POINT RATIOS FOR FIRST ACADEMIC YEAR IN THE UPPER DIVISION

	Number	Percentage Low Below "C"	Percentage Medium "C"	Percentage High "A" or "B"
MEN				
<i>Native Stanford</i>	498	18	67	15
<i>Advanced Standing</i>	464	21	59	20
Standard Colleges	290	21	60	19
Junior Colleges	59	29	49	22
Normal Schools	83	18	60	22
Foreign Colleges	32	16	59	25
WOMEN				
<i>Native Stanford</i>	89	7	61	32
<i>Advanced Standing</i>	180	12	52	36
Standard Colleges	100	12	54	34
Junior Colleges	20	25	45	30
Normal Schools	60	8	50	42

It might be expected that for students of equal ability those entering upper division work at Stanford from other institutions would make somewhat lower records during their first year in residence than Native Stanford students, because the

latter group have had the advantage of two years' knowledge of Stanford conditions, courses, and standards. They have completed their period of adjustment. Thus the period used for comparison, the first year of upper division work, is perhaps unfair, or at least unfavorable, to the junior college and other Advanced Standing groups. To make the comparison complete, second-year as well as first-year upper division records should be compared, an extension of this study which is planned for the future.

However, another basis for comparison is possible which does take into consideration the entire academic record of the different groups of students at Stanford. Data are available for a comparison on the basis of graduation honors for the classes finishing their courses in 1926 and 1927. High scholastic attainment during the University course is recognized by conferring the degree of Bachelor of Arts "with distinction" upon about one-tenth of the graduating class, and "with great distinction" upon about one-twentieth of it.

Mrs. M. D. Huston, secretary of the Scholarship Committee, has compiled certain facts regarding graduation honors for the class of 1926 which throw additional light on the accomplishment of different groups at Stanford. She has made no distinction of sex, and her groups of colleges differ slightly from those used in this chapter, but not sufficiently to affect the general conclusions. A summary of her data is exhibited in Table XII (p. 186).

While the Junior College group was a comparatively small portion of the class, it is noteworthy that 30 per cent of this group achieved graduation honors, as contrasted with 15 per cent for the class as a whole and with 14 per cent for the portion of it which was Native Stanford students.

A similar compilation has been made by the present writer for the class of 1927. The results are shown in Table XIII.

The superiority of the Junior College group is not so pronounced for the class of 1927 as for the class of 1926. But 18 per cent of them achieved graduation honors as compared with

TABLE XII

PERCENTAGE DISTRIBUTION OF GRADUATION HONORS BY SOURCE OF STUDENTS FOR STANFORD GRADUATING CLASS OF 1926

	Number	Percentage with Graduation Honors	Percentage with "Distinction"	Percentage with "Great Distinction"
<i>Entire Class</i>	572	15	10	5
Native Stanford	335	14	9	5
Standard Colleges	194	15	9	6
Junior Colleges	23	30	26	4
Normal Schools	20	20	20	0

14 per cent of the Native Stanford group and 13 per cent of those from standard colleges. Only the Normal School group had a distinctly better record. The Junior College group had the

TABLE XIII

PERCENTAGE DISTRIBUTION OF GRADUATION HONORS BY SOURCE OF STUDENTS FOR STANFORD GRADUATING CLASS OF 1927

	Number	Percentage with Graduation Honors	Percentage with "Distinction"	Percentage with "Great Distinction"
<i>Entire Class</i>	617	15	10	5
Native Stanford	349	14	9	5
Standard Colleges	186	13	11	2
Junior Colleges	33	18	9	9
Normal Schools	49	28	20	8

largest percentage of all of those graduating "with great distinction."

Summary.—A comparative study of the records of various groups of students at Stanford University over a three-year

period shows that students entering the University after completing a junior college course elsewhere are superior in ability to other groups when measured by standard intelligence test scores, or when measured by their previous academic records; that they have made slightly lower average records during their first year of adjustment to university conditions; but that at the conclusion of their course they have carried off much greater than their share of graduation honors. Judged by results to date, the junior college seems to be successfully performing at least one of its important functions—that of preparation of students for advanced work in the University.

CHAPTER XIII

THE PLACE OF THE JUNIOR COLLEGE IN EDUCATIONAL REORGANIZATION

WILLIAM MARTIN PROCTOR*

The two most significant movements in American public education, during the past twenty years, are related to the upward and downward extension of the four-year secondary school.

The first tendency calling for examination is that which has had to do with the downward extension of the secondary school. For a number of years the conviction had been gaining ground that the last two years of the eight-year elementary program were all but superfluous, and that they could be better employed as an introduction to, or better, as an integral part of secondary education. The agitation growing out of this conviction resulted, between 1905 and 1911, in a number of experiments with different combinations of grades, until finally the institution known as the "junior high school" was evolved. So rapid was the growth of this type of school that by 1917 Briggs found 800 of them, and in 1925, some 2,500 junior high schools were reported to the United States Bureau of Education. It is safe to say that, counting all varieties, 6-2-4, 6-6, and 6-3-3, there are probably in the neighborhood of 3,000 junior high schools in the country at the present time.

The second tendency has to do with the *upward* extension of secondary education. This second movement, in relation to the total number of standard colleges in the country, has been just as rapid in its development. McDowell¹ received reports from

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¹ F. M. McDOWELL, *The Junior College, United States Bureau of Education Bulletin* (1919) No. 35.

105 junior colleges in 1917-1918, Koos¹ found 200 in 1922, and it is estimated that there are about 300 junior colleges, public and private, in the United States in 1927. Thus it will be seen that the junior college is no longer in the purely experimental stage of development, but has taken its place among our permanent educational institutions, and is destined to play an important role in the ultimate reorganization of education in this country.

The net result of this movement toward educational reorganization to date has been a rather widespread recognition of the fact that secondary education properly covers an eight-year period, including chronological years twelve and thirteen to nineteen and twenty, and school grades seven to fourteen, inclusive. Both of these new institutions which have grown out of the upward and downward extension of secondary education, while fully established and developing very rapidly, are still on the defensive. The junior high school must make its way in the face of the eight-year elementary tradition and the four-year high school tradition, and the junior college has to meet the opposition of the American four-year college tradition. The progress which has already been made by both of these institutions is the best possible indication of the vitality of the reorganization movement.

It would be worth while to follow the development of the junior high school and to make an analysis of its present status and possible future lines of development, but in this chapter we are primarily concerned with the junior college. We shall confine ourselves therefore to that phase of the reorganization movement, taking it up under these headings: the relation of the junior college to the four-year high school; the relation of the junior college to the teachers college; the relation of the

¹ L. V. Koos, *The Junior College Movement* (Boston: Ginn & Co., 1925), pp. 2.

junior college to the four-year college; and the relation of the junior college to the university.

The relation of the junior college to the four-year high school.—The majority of existing public junior colleges are connected with four-year high schools. The customary evolution is for a high school district, or a group of districts to organize a junior college, made up of the first two years of college; to select a dean; to add appropriate courses of study; and to utilize the high school building, library, laboratories, and physical education facilities. A few new faculty members are selected, but a considerable amount of the teaching of junior college students is performed by high school teachers. As the junior college grows in attendance and increases in taxable property a separate plant is secured, sometimes on the high school site and sometimes on a separate site.

The question is often asked, "What is the effect of the organization of a junior college upon the high school with which it is connected?" "Does it tend to detract from the importance of the high school by draining off its best teachers?" Does it absorb such a percentage of the available resources that the result is two inferior institutions where there might have been one good one?"

The question of the effect of the organization of a junior college in connection with a four-year high school on the quality and morale of the high school teaching staff will first be considered. Where there is a considerable difference between the salary of the junior college teacher and that of the high school teacher, it is only natural for the ambitious high school teachers to aspire to positions in the junior college. The principal of the high school with which the junior college is connected must therefore decide whether he will secure an entire new staff for his junior college or promote some of his high school teachers to junior college rank and salary. In the case of the small junior

college, with taxable property of between three and ten million dollars, it is almost always necessary to have a combination faculty, part high school and part junior college. If definite educational standards are set up and adhered to strictly it is possible to maintain the morale of both the high school and the junior college staff. High school teachers will seek to fit themselves for junior college appointments, and the general educational level of the high school teaching group will be raised above what it was when the junior college was organized.

Some administrators have adopted a single salary standard for both high school and junior college, basing increases and ultimate salary upon teaching experience, efficiency, and educational qualifications such as foreign travel, advanced degrees, etc. Under this system an instructor is more apt to be satisfied to teach where his greatest interest and aptitude lies, and not to seek junior college teaching just because it offers more remuneration. The difficulty involved in the single salary schedule for high school and junior college teachers is that of financing. If the principle obtains that junior college teachers should be paid on a scale comparable with instructors and assistant professors in the colleges, i.e., \$2,500 to \$3,500 per year, the payment of that scale to high school teachers will involve a heavy increase in the joint salary budget. Whether the single or the dual standard of salaries obtains as between junior college and high school faculties in a given district, the fact remains that the problem of keeping up the quality of high school instruction, while meeting educational standards set for the accredited junior college instruction, must be squarely faced by the administrative head of the joint institution.

The next question to be answered, "Does the junior college, added to a high school, tend to absorb such a portion of available resources as to make two weak institutions grow where there ought to have been but one?" is primarily one of available

resources and the willingness of the community concerned to tax itself for secondary educational purposes. The history of the junior college movement up to date clearly shows that the organization of a junior college in a high school district where there is less than a ten million dollar tax valuation to support it, is an educational mistake. Where there is a smaller tax background than that just named it is almost inevitable that the quality both of high school and junior college instruction will be inferior. In California, under the original law, which permitted the forming of junior college departments in high school districts having a minimum of three million dollars tax valuation, nine or ten junior colleges have been born, only to meet an untimely death through malnutrition.

The best policy for a state which wishes to encourage the establishment of permanent, worth-while junior colleges to pursue, is to fix ten million property valuation as the absolute minimum, and to encourage the organization of union and joint-union junior college districts. Where there is an adequate property valuation as a basis for support of a junior college, there is no real reason why the support of such an institution should detract from the normal support of the high school with which it is connected. As a matter of fact the presence of the junior college, with its wider community service, often results in securing a better standard of support for the combined institutions than the high school alone had ever been able to command.

A wise policy of state aid to junior colleges is also a factor which helps to determine the quality of service rendered. In California, where a district with less than ten million in property valuation organizes a *junior college department*, it receives only the state and county aid given to high schools, which amounts to about \$90 per student in average daily attendance. But where a *junior college district*, with ten million or greater

property valuation, is organized, it receives \$2,000 per year, as bonus, and \$100 per student in average daily attendance from the State Junior College Fund. This policy encourages the organization of junior colleges only in the larger taxation units, and helps to make adequate support more certain.

The relation of the junior college to the teachers college.—A large number of two-year normal schools have, in recent years, been transformed into four-year teachers colleges with degree giving powers. This has entailed a considerable expansion of their curricula, and in a number of instances the first two years have been made to correspond to the first two standard college years or the work of the junior college. In six of the seven California state teachers colleges, junior college divisions, known as such, have been incorporated into the teachers college curriculum. There is not entire agreement that this policy has been an unqualified success, and some of the teachers colleges are said to be willing to “unload” their junior college annexes upon the public school systems of the cities where they are located. Some of the teachers colleges, on the other hand, claim that the junior college has been a distinct asset to the life of the institution.

Among the disadvantages of the teachers college junior college it is claimed that too much in teacher time and institutional financial resources must be devoted to junior college students and courses. Also that it introduces into the teachers college a student element having different motives, interests, and objectives from those of the regular teachers college group. Disciplinary problems are also said to be greatly increased by the introduction of the junior college element. The result of these disturbing factors is said to be a lowering of the professional standards and the general morale of the teachers college.

The advantages resulting from the addition of a junior college division to the teachers college are said by some of the

teachers college presidents to be more than an offset for the disadvantages. The presence of a group of purely academic courses, equivalent to the lower division courses of the standard colleges, is said to be a distinct asset. It enables prospective teachers to develop a better cultural background for their life's work. It cuts across the prevailing tendency of teachers colleges to require too much in the way of "methods courses" and too little in the way of "content courses." The junior college courses tend to attract a much larger percentage of male students, many of whom later decide to take up the profession of teaching. A better balance is thus secured in the student body, and recruiting for the field of education is promoted at a strategic point. The variety introduced into student activities by the presence of large numbers of junior college students means the enrichment of student body life and increases the "holding power" of the institution. While admitting that there are many unsolved problems in connection with the teachers college junior college, the administrators favorable to the combination are convinced that the general result has been on the credit side of the ledger.

With the threatened disappearance of the two-year normal school through the rapid development of four-year teachers colleges, there is a field of teacher training being vacated. This is the preparation of the rural and short-term elementary certificate type of teacher, who cannot afford to take four years beyond high school for professional training. There will be a demand for this shorter teacher training period for a good many years to come and some institution will have to be found to take over the task. It is quite probable that this sort of training course will be added to the functions of the two-year junior college along with its other community-serving terminal courses. Whether we like the idea or not it will be necessary to provide teacher training on a semi-professional level to meet the needs of communities which cannot afford to pay for the services of

teachers who have been trained in four-year teachers colleges. The two-year junior college can easily fill this gap in the teacher training program and add thereby to its range of usefulness.

The relation of the junior college to the standard four-year college.—Dr. George Herbert Palmer, in the April 1927 *Atlantic Monthly*, gave voice to his distrust of the junior college in the following words:

It [the junior college] is assumed to be a blessing. I want to question this assumption and invite attention to the effects in the long run. In my judgment it is more likely to bring disaster than anything which has happened in our world in education during the last fifty years.

Dr. Palmer is fearful of the effect of the junior college upon the traditional American four-year college, as well as the public and private universities of the land. He foresees the ultimate disappearance of the four-year cultural college, and the extrication of the cultural element entirely from university life, if the junior college idea continues to spread at the present rate.

There is no doubt at all that the multiplication of effective public and private junior colleges will ultimately result in the elimination of the inadequately endowed, poorly equipped, four-year college. These institutions, with their overworked and underpaid teachers, constitute some 50 to 60 per cent of the so-called colleges of the country. With their desperate hand-to-mouth struggle for survival, with the constantly increasing cost of upkeep, and with the higher standards set up by such agencies as the Carnegie Foundation for recognition as standard institutions, they cannot compete with publicly supported junior colleges. Many of them have already given up the attempt to do four years of college work and have demoted themselves to private junior college status. Far from being a calamity, this result of the advent of the junior college has been distinctly to the advantage of both cultural and practical educational values.

There is, however, no reason to assume that the well-endowed, long-established colleges, such as Bowdoin, Amherst, Williams, Swarthmore, Beloit, Grinnell, Pomona, or Whitman, will be adversely affected by the extension of the junior college. Even though they should decide to turn over the first two years of their present course to the junior colleges, as belonging distinctly to secondary education, they could add a year or two of advanced work along the lines of liberal culture which they now support. By exalting the teaching function, by providing time for independent study and the leisurely following of intellectual interests, and by affording the opportunity for intimate personal association between great teachers and relatively small student bodies, our liberal arts colleges will find abundant justification for survival.

The relation of the junior college to the university.—The effect of the junior college movement upon the university is already becoming apparent. Johns Hopkins plans soon to eliminate its first two college years, and Stanford University, by vote of the Board of Trustees, in June 1927, is gradually to eliminate its lower division, completing the process by 1934. The University of Wisconsin is trying out a kind of creative education type of experimental college. The faculty of the University of Michigan has recommended a plan for the establishment of a "university college" to serve as a foundation for collegiate and professional courses. The new college would have as its problem the student, instead of professional training. The University of California and other state universities have for many years had lower division organizations following the lines laid down by Dr. Harper of the University of Chicago. In these lower divisions the effort is made to give the student wholesale educational guidance, or orientation, and to see that he gets a foundation of liberal culture before entering upon his professional training in the upper division.

The entire lower division plan of organization is an acknowledgment on the part of the universities that the lower years of their present courses properly belong to secondary education. In many instances it is a belated recognition of the fact that the handling of large groups of immature students under conditions existing in the large universities is an absolute failure. There is reason to believe that as soon as the junior colleges are able to take over the entire burden of later adolescent training, the other universities will follow the example of Stanford and Johns Hopkins and either eliminate, or completely separate the lower division from the university proper.

The character of our American universities would undoubtedly be changed in this process of reorganization. Relieved of their present lower divisions, they would become universities in fact as well as in name. That is to say, they would become collections of liberal arts and professional colleges of high grade. All students coming to them would have completed their preparatory period of training. They would be more mature. They would know where they were going. They would be more serious-minded and more interested in intellectual pursuits. Instead of liberal culture suffering from the change it would be infinitely benefited. Financial resources now devoted to providing instructors and recitation halls for the 60 per cent of secondary school population, i.e., Freshmen and Sophomores, could be utilized in securing and holding the highest type of specialists, research men, and teachers of outstanding gifts for the advanced liberal arts and professional schools. This would result in placing scholarship and intellectual interests at the center of the university life, a place which they unfortunately do not hold in the average American university today.

It is quite possible that athletic and social enterprises would suffer modification and even be somewhat eclipsed in the type of university above described. Such an outcome could be borne

with equanimity by those who have devoted their lives to the expansion of knowledge and the instruction of youth. When there are more athletic coaches receiving salaries of \$10,000 to \$20,000 per year than there are college presidents who receive like stipends, there may be reason for the suspicion that some of the sideshows have moved into and monopolized the main tent.

If the junior college movement results in restoring the perspective in education it will render a worth-while service. No one wants to take all the joy out of student life, and there is no reason to believe that the new-type university will be lacking in social and athletic appeal. But it is quite certain that the more mature, more serious-minded students of this new-type university will turn to social and athletic enterprises as means of diversion and employment of leisure time, rather than as the be-all and end-all of university life. Such a change of attitude on the part of the university student might affect the present tendency toward "stadiumitis" and commercialized sports, but it would not detract from the value of the university as an institution of learning. It might even affect the number clamoring to enter the university, but here again the university would probably gain in quality what it lost in quantity. The fact is, however, that the university would attract just as large a student body, but this student body would be of a different temper and purpose, and there would be a much smaller turnover. A larger percentage of those who entered would remain to complete their training for a life's work, and by their later distinction add to the glory of their alma mater.

Ultimate effect of the junior college upon educational reorganization.—If the contention is valid that secondary education properly covers about eight chronological years, twelve or thirteen to nineteen or twenty, i.e., the entire adolescent period of life, then it would seem desirable to cover that period

with two institutions rather than three, as at present. A student may attend a junior high school for two or three years, a senior high school for three or four years, and a junior college for two years, thus having three changes of school and two breaks in the continuity of his secondary education. The greatest drawback in such an arrangement is that no one of the three institutions has an opportunity to make as deep and lasting an impression as it could if it covered a four-year period.

Thus if early adolescence was covered, grades seven, eight, nine, and ten, by a single institution, it would take the pupils through age sixteen. There would be many advantages of the tenth over the ninth grade as the end of the junior high school course. Eighty per cent of those who enter the eleventh grade are sixteen years or over, and more than 90 per cent of those over sixteen years of age have reached physiological and mental maturity. Thus the four years represented by grades seven, eight, nine, and ten would have a student population made up of those who were in the transition stage between pubescence and post-pubescence. To this group also the accepted principles of junior high school organization would apply. Again the legal school-leaving age in many of the states is now sixteen, and the age for beginning the apprenticeship to an industrial vocation is also quite generally placed at age sixteen by the trades concerned. Thus the tenth school grade marks a more natural terminal point for thousands of pupils whose formal schooling must end at age sixteen than does either the eighth or the ninth school year. The four-year junior high school would make possible the accomplishment of legitimate junior high school aims in a manner much more satisfactory than is the case in a three-year junior high school.

The last four years of the adolescent period could then be covered by an institution embodying the eleventh, twelfth, thirteenth, and fourteenth school grades, i.e., the last two years

of the present high school and the first two years of the present college. The students in such an institution would represent the later adolescent years; over 90 per cent of them would have reached mental and physiological maturity. They would have passed through the careful guidance and exploration experiences of the four-year junior high school. They could be allowed a larger measure of self-direction, both in the selection of subjects and curricula and in matters of personal and social activity. They would enjoy the advantage of instruction under teachers of college calibre, and there would be possible the development of an excellent morale based on the homogeneous nature of the student body. Such an institution could well become a present-day substitute for the four-year liberal arts college of two generations ago. The range of student age would be about the same. The courses of study would be richer than any offered in American colleges forty years ago, and the same brand of personal contact between students and teachers could be fostered.

The advantages of the four-year junior college over the two-year junior college are evident. It would be more attractive to both teachers and students because it would no longer be a two-year segment, but would be a separate, going concern with its own equipment; with a period long enough to develop an individuality of its own; with student activities appropriate to the later adolescent period; and with the possibility of commanding greater community interest and support than is given to the two-year type of institution. Educationally it would eliminate the present breaks in the continuity of the student's school progress, and make possible the simplification of the curriculum for the later adolescent period by doing away with wasteful overlapping in the content of academic subjects, such as mathematics, science, language, and social science. Finally, the four-year junior college, of the type here described, would

carry the student completely through the exploratory and preparatory phases of his education, give him a thorough liberal training, and bring him, matured, trained to self-discipline and self-direction, to the beginning of his professional school, or fit him to enter some semi-professional or advanced business vocation, provided he is not able to continue his education in the university.

The proposed four-year junior college may well become the key institution in the reorganization of American education. As above indicated it would enable the eight-year span of adolescence to be covered by two institutions instead of by three, as at present, and leave only one break, or transition period, instead of two. When the system becomes fully developed the prefix "junior" can be dropped, and the early adolescent institution can be called the "high school," while the later adolescent institution could be called the "college." Other names which have been suggested for the four-year type of junior high school are the "intermediate school" and the "lower school." For the four-year junior college type of institution the names "higher school" and "academy" have been advocated. The idea back of these suggestions is to avoid the confusion involved in the addition of the term "junior" to present titles. Whatever the name finally applied to the two secondary institutions needed to cover the adolescent period adequately, the term "university" would then be applied only to institutions where groups of advanced liberal arts and professional colleges were assembled under one general organization. The present two-year and three-year junior high school, the present three-year and four-year senior high school, and the present two-year junior college and four-year standard college would gradually disappear.

The ultimate organization would then be: six years of elementary education, eight years of secondary education (covered by the new-type high school and the new-type college), and the

university, made up of affiliated schools requiring from four to six years for the completion of professional courses leading to advanced degrees. Each of these institutions would then have a clear-cut function to perform, would minister to the educational needs of fairly homogeneous groups of students, would be administered in a more economical manner, and would achieve results in the adaptation of curricula to the needs of students at present impossible owing to the way in which existing institutions overlap in character of student populations and content of courses. The rapid rise of the junior high school, which has increased in numbers 275 per cent in the ten years since 1917, and of the junior college, which has increased 200 per cent during the same period of time, makes the prediction reasonable that the reorganization movement will become an accomplished fact within the next twenty years. If the further development of the movement follows the lines of present growth it will be accomplished first in the Middle Western and Far Western states, with the Southern states following close behind. The great majority of the existing public junior colleges are to be found in the Far West and Middle West, while the private junior colleges are most numerous in the South. The Eastern and North Atlantic states have hardly yet been touched by the junior college movement. Now, however, that the experiment has been tried out in so many different states, under such varied circumstances, and in the main with such satisfactory results, we may look forward confidently to an immediate period of rapid expansion in numbers and improvement in the quality of the new type of institution.

CHAPTER XIV

ANNOTATED BIBLIOGRAPHY

WALTER CROSBY EELLS*

The following bibliography of ninety titles is intended to be carefully selective rather than inclusive and exhaustive. It represents an attempt to select the most significant titles from a group of over two hundred which have been examined. In the selection the effort has been to consider not only the completeness with which the whole junior college field is represented but also the inherent importance of each article, as well as its accessibility, its authorship, and its date. The bibliography is much more complete for recent years than for the earlier period. About one-third of the references have appeared within two years. More complete bibliographies for earlier years may be found in McDowell's and Koos's studies, listed below.

1. ALEXANDER, C. C. and WILLETT, G. W., "Some Aspects of the Junior College," *School Review*, XXVIII, 15-25. (Chicago: University of Chicago, 1920.)

Particularly based on results at Hibbing (Minn.) Junior College. Bibliography of fifteen titles.

2. ANGELL, J. R., "The Junior College Movement in High Schools," *School Review*, XXIII, 289-302. (Chicago: University of Chicago, 1915.)

Paper before North Central Association, giving early history of the movement, and reporting results of questionnaire sent to 19 universities, 7 colleges, and 11 high schools with junior college departments.

3. ANGELL, J. R., "Problems Peculiar to the Junior College," *School Review*, XXV, 385-97. (Chicago: University of Chicago, 1917.)

Address before Junior College Union of Missouri, discussing nature of curriculum, type of faculty, independence of high school, and social problems.

* Associate Professor of Education, Stanford University.

- BARROWS, D. P., "State Provision for Junior Colleges," *Transactions and Proceedings of the National Association of State Universities*, XX, 56-77. (Lexington, Kentucky: 1922.)

Excellent summary of legal provisions in California with text of junior college laws of 1921 and of affiliation agreements.

- BENNETT, G. V., *Public Administration of Vocational Education of Junior College Grade*. (Berkeley: 1926.)

Unpublished thesis for Ph.D. degree at University of California.

- BLAUCH, L. E., "Reorganization on European Lines Appears Imminent," *School Life*, IX, 77-79. (Washington, D.C.: Government Printing Office, 1923.)

Junior college seems destined to become an integral part of secondary education. Traces its history back to the Renaissance.

- BOLTON, F. E., "What Should Constitute the Curriculum of the Junior College or Extended High School?" *School and Society*, VIII, 726-30. (Lancaster, Pa.: Science Press, 1918.)

Advocates broadening of the course of study to meet community needs as well as university preparation. Gives twelve recommendations adopted by University of Washington for accrediting junior college work.

- BOLTON, F. E., "Some Probable Effects upon Higher Education Due to the Development of Junior Colleges," *Educational Administration and Supervision*, V, 85-93. (York, Pa.: Warwick & York, Inc., 1919.)

Based on questionnaires sent out two years earlier to superintendents and principals all over the United States.

- BRENEISER, S. G., "Individualistic Instruction in the Junior College," *Sierra Educational News*, XXII, 151. (San Francisco: 1926.)

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BRUSH, H. R., "The Junior College and the Universities," *School and Society*, IV, 357-65. (Lancaster, Pa.: Science Press, 1916.)

Good historical summary and report of questionnaire to 17 junior colleges and 13 universities on junior college advantages, procedure, and success as related to the university.

BURLINGAME, L. L., and MARTIN, E. G., "General Biology and the Junior College," *Science*, n.s., LI, 452-55. (Lancaster, Pa.: Science Press, 1920.)

Shows the desirability of such a course for purposes of general culture in the junior college.

"California Junior Colleges," *Sierra Educational News*, XXII, 147-50. (San Francisco: 1926.)

Brief reports of progress by principals at Fullerton, Brawley, Taft, San Benito County, Kern County, Pomona, Santa Maria, and Visalia Junior Colleges.

CAMMACK, I. I., "The Legitimate Range of Activity of the Junior College in the Public School System," *Proceedings of the National Education Association*, 1917, 724-29. (Washington, D.C.)

Describes the development of the junior college at Kansas City, Mo.

CAMPBELL, W. W., "The Junior Colleges in Their Relation to the University," *California Quarterly of Secondary Education*, II, 97-101. (Berkeley, California: 1927.)

The president of the University of California shows that "the attitude of the University to the junior college movement is thoroughly friendly and sympathetic, but this attitude is not unconditional."

CAPEN, S. P., "Recognition of the Junior College," *Report of United States Commissioner of Education*, 1914, I, 166-68. (Washington, D.C.: Government Printing Office.)

Outline of the junior college plans in Wisconsin, Missouri, and Virginia.

CLAXTON, P. P., "Junior Colleges' Opportunity," *School Life*, V, 1, 10-11. (Washington, D.C.: Government Printing Office, 1920.)

Claims that without additional expense the effectiveness of our higher institutions might be increased at least one-fourth.

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Good recent statement of the history, development, and usefulness of the junior college movement in Missouri and of its relation to the state university by its president.

- 14 JORDAN, DAVID STARR, "Junior College," *Forum*, LXXV, 448-50. (New York: 1926.)

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- 15 KEMP, W. W., "The Junior College Movement in California," *Eighth Yearbook of the National Association of Secondary School Principals*, 1924, pp. 82-94. (Berwyn, Illinois.)

General survey of the situation in California in 1924, with emphasis on the relation to the state university.

- 16 KOLBE, P. R., "The Junior College and Municipal Universities," *School and Society*, XIII, 451-56. (Lancaster, Pa.: Science Press, 1921.)

The president of the Municipal University of Akron (Ohio) considers the common causes, purposes, and ultimate destiny of the two types of institutions.

- 17 KOOS, L. V., *The Junior College (Research Publications of the University of Minnesota, Education Series, No. 5)*. 2 vols., 682 pages. (Minneapolis, Minnesota: 1924.)

A voluminous and exhaustive report based upon an extensive investigation financed by the Commonwealth Fund and the University of Minnesota, resulting from personal visits by the author to seventy junior colleges, and detailed reports from all others. Reported in five parts:

1. The scope and aspirations of the movement.
2. The educational functions of the junior college.
3. The forces of reorganization in higher education.

4. Overlapping in high school and college.

5. Instituting the junior college plan.

Contains 231 tables and 100 figures. Appendix contains lists of junior colleges, standards for accrediting junior colleges, and bibliography of seventy-eight titles.

Koos, L. V., *The Junior College Movement*. (Boston: Ginn and Company, 1925.) 436 pages.

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LANGE, A. F., "The Junior College—with Special Reference to California," *Educational Administration and Supervision*, II, 1-8. (1916.) Also in *Proceedings of the National Education Association, 1915*, pp. 119-24. (Washington, D.C.: 1915.)

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LANGE, A. F., "The Junior College as an Integral Part of the Public School System," *School Review*, XXV, 465-79. (Chicago: University of Chicago, 1917.)

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LANGE, A. F., "The Junior College—What Manner of Child Shall This Be?" *School and Society*, VII, 211-16. (Lancaster, Pa.: Science Press, 1918.)

Address before California Teachers Association. Good general statement of guiding principles and policies.

LANGE, A. F., "The Junior College," *Sierra Educational News*, XVI, 483-86. (San Francisco: 1920.)

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- 60 LEONARD, R. J., "Suggestions for the Place and Functions of Junior Colleges in a System of Schools," *Eighth Yearbook of the National Association of Secondary School Principals*, 1924, pp. 106-11. (Berwyn, Illinois.)

States ten definite theses with reference to junior college organization, with reasons in support of each.

- 61 LEONARD, R. J., "Professional Education in Junior Colleges," *Teachers College Record*, XXVI, 724-33. (New York: Columbia University, 1925.)

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- 62 LEONARD, R. J., "Junior College from the Standpoint of the University," *Teachers College Record*, XXVIII, 543-50. (New York: Columbia University, 1927.)

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- 64 McCLANAHAN, MRS. B. B., "What Are the Greatest Needs and the Greatest Handicaps to the Average Junior College Library?" *Libraries*, XXXI, 201-3. (Chicago: Library Bureau, 1926.)

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- 69 North Central Association of Colleges and Secondary Schools. Standards of Accredited Institutions of Higher Education—Junior Colleges, *North Central Association Quarterly*, I, 22-23. (Chicago, Illinois: 1926.)

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- 71 PROCTOR, W. M., "The Junior College and Educational Reorganization," *Educational Review*, LXV, 275-80. (Garden City, N.Y.: Doubleday, Page & Co., 1923.)

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- 72 PROCTOR, W. M., "The Junior College in California," *School Review*, XXXI, 363-75. (Chicago: University of Chicago, 1923.)

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- 76 PROCTOR, W. M., "Recent Developments in the Junior College Situation in California," *School and Society*, XIX, 690-94. (Lancaster, Pa.: Science Press, 1924.)

Excellent definite statement of development in California in three periods, following laws of 1907, 1917, and 1921. Contains many definite facts and summary of conditions.

- 75 RATCLIFFE, E. B., "Accredited Higher Institutions," *United States Bureau of Education Bulletin No. 10*, 105 pages. (Washington, D.C.: Government Printing Office, 1926.)

Latest lists and standards of junior colleges accredited by all the standard accrediting bodies in the United States—national and regional educational associations, state universities and state departments of education, and church boards of education.

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- WOOD, J. M., "The Junior College," *Proceedings of the National Education Association*, 1916, pp. 151-57. (Washington, D.C.: 1916.)

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- ZOOK, G. F., "The Junior College," *School Review*, XXX, 574-83. (Chicago: University of Chicago, 1922.)

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- ZOOK, G. F. (Editor), "National Conference of Junior Colleges 1920, and First Annual Meeting of American Association of Junior Colleges, 1921," *United States Bureau of Education, Bulletin No. 19*. 73 pages. (Washington, D.C.: Government Printing Office, 1922.)

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- ZOOK, G. F., "The Junior College Movement," *School and Society*, XXIII, 601-5. (Lancaster, Pa.: Science Press, 1926.)

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Why the JUNIOR COLLEGE?

by H. Leslie Sawyer

THE Junior College is making a profound impression on the educational system of America because it is meeting a specific educational need. Within a short period of 20 years, nearly 500 Junior Colleges have found root in the United States and bid fair to develop into vigorous institutions of post-secondary learning.

Many young people who do not wish to spend four or more years in a traditional college or university, but are interested instead in pursuing the liberal arts subjects, music, secretarial science, physical education, and art for a briefer period, may now be rewarded with a certificate or diploma from a recognized Junior College. It is the consensus of opinion that the offerings of the freshman and sophomore years of a standard junior college compare favorably in scope and content with courses offered in the corresponding years of the average four-year American college. Therefore as most of the higher institutions of learning are moving up their professional courses to the junior year, the preliminary work may well be accomplished in a smaller college of the junior type where numbers are relatively small and personal attention to the students' methods of study, expression of thought and social adjustment is conspicuous. The social, vocational, and religious problems of the mid-adolescent demand a reasonable solution under the expert guidance of trained leaders.

This type of college is organized on both a four-year and a two-year plan. The former includes the last two years of the high school and the first two years of college work, while the latter incorporates the traditional freshman and sophomore college years only. Such schools offer the young man or woman an unusual opportunity to complete a high school education and continue post secondary education for at least a two-year period while investigating a future field of specialization in medicine, law, fine arts, or other specific professional means of self-expression.

The Junior College is chiefly concerned with the development of the student, and teachers are employed in the leading Junior Colleges who are not only experts in the various fields of their academic training but excel in their ability to direct sympathetically the potential forces within the student. Only teachers of outstanding character and ability to teach are employed in the first rate Junior Colleges.

Both private and public Junior Colleges maintain at least two functions. The first and what is probably the foremost is to round out the general education of the student at a time in life when he is presumably best fitted to receive the information offered to him. The second is to correlate courses with those offered in senior colleges and universities

so that the student may transfer at the completion of his junior course and take the last two years of research or specialization in a senior college or university. The latter plan functions without interruption in the many universities and colleges of the South and West, and to a surprisingly satisfactory degree in the most conservative East.

In comparing the scholastic success of graduates of Junior Colleges with those who have taken the first two years in standard colleges, and have earned the right to junior class standing, let us consider ninety-five Junior College graduates from both public and private schools, divided between

Many parents have asked us what the Junior College has to offer their boy or girl. This, and other pertinent questions, are answered in the following article by Mr. Sawyer, whose leadership in the Junior College movement in the East is recognized.

Junior Colleges of the Middle West and California. Thirteen different universities and six colleges are represented in the data concerning scholastic success of Junior College graduates. Among the higher institutions included are the University of California, Illinois, Minnesota, Missouri, Southern California, and Wisconsin, Stanford, and Washington Universities. The conclusion drawn is that there seems to be no appreciable differences in the degrees of success in the work of the Junior College and those who did their Freshman and Sophomore work in a State University or standard college. The results of other investigations lead the parent to believe that the chances for collegiate success are as great if the student performs the first two years of college work in the Junior institution where classes are small and instruction relatively personal. Just as the Junior High School has bridged the former gap between the elementary and secondary school, so does the Junior College bridge the gap between the high school and the collegiate work of the traditional college but in addition it provides for a logical and psychological termination of formal education if for various reasons continued class room participation is impractical or impossible.

A new educational opportunity to the individual is presented through the medium of the Junior College and it appears that thousands of boys and girls will avail themselves of the chance to round out their education by two years of post secondary study. In the last analysis the new unit in American education may well be associated with the demands of the public. Much of the pioneering labor is now being done through the so-called private institutions, because of unusual resources and modern equipment, but the time is not far distant when the Junior College will become a fixed educational unit in city and county throughout the United States. One may be reasonably certain that our future educational program will quite universally include grades ten to fourteen and will be labeled The Junior College.

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